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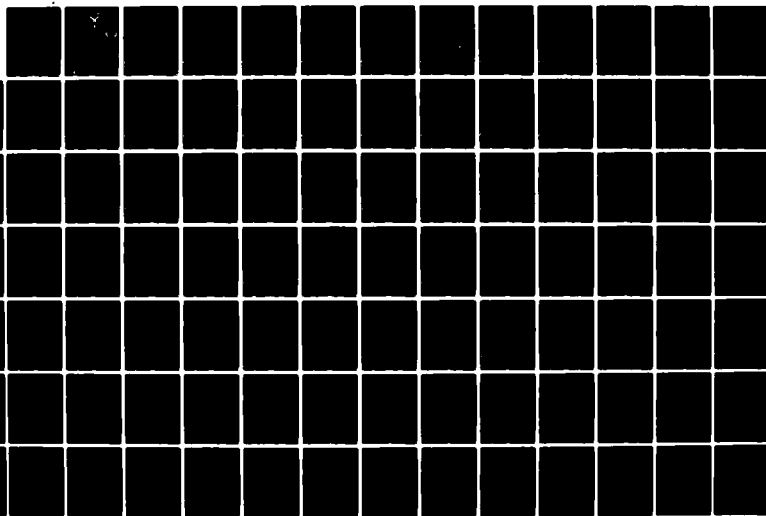
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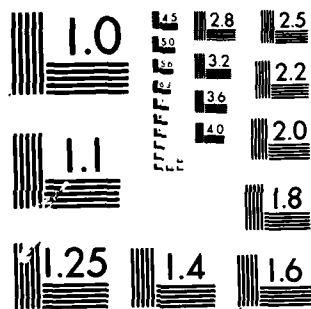
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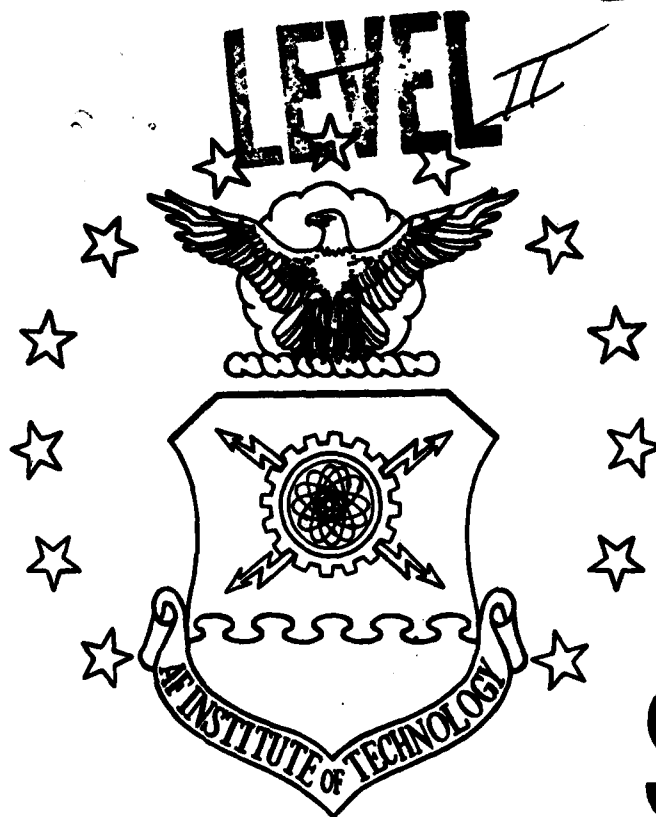
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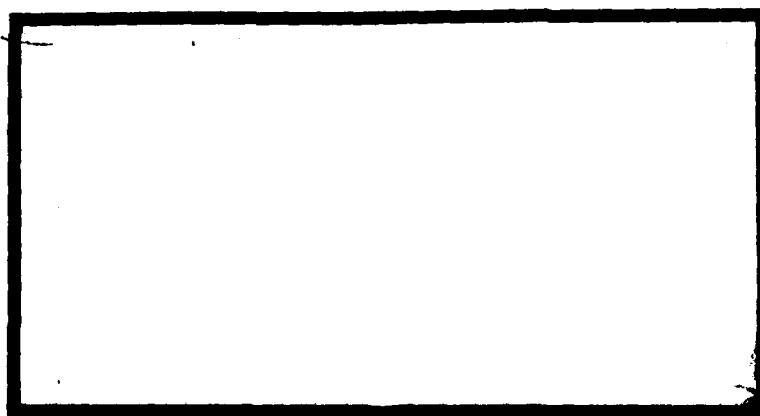


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PRESENTATION OF THE LETTER OF OFFER
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THE F-16: A CASE STUDY.

11/1/77

James M. McClaugherty, Captain, USAF
Gregory J. Niemiec, Captain, USAF

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→ The sheer dollar volume of the Foreign Military Sales (FMS) program coupled with the intricate methodology involving practically all levels of the Federal government have increased the importance of properly managed FMS. In a previous thesis by Captain Robert Materna, in 1976, four problem factors were identified during the process of drawing up the Letter of Offer and Acceptance. This research attempts to validate that study using a case study approach involving the sale of 160 F-16s to Iran. During the research the problem factors were expanded to include three more developed by the authors. The details of the sale were described structured around various FMS phases and management tools. The negotiations were then analyzed by phase and specific problem factor to provide the reader an insight into the potential problems of an FMS sale. Finally, a series of recommendations were made to help future managers deal with some of the potential problem areas in FMS sales. The research concludes that further emphasis is still required in managing this important instrument of foreign policy.

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PRESENTATION OF THE LETTER OF OFFER
AND ACCEPTANCE TO IRAN FOR
THE F-16: A CASE STUDY

A Thesis

Presented to the Faculty of the School of Systems and Logistics
of the Air Force Institute of Technology

Air University

In Partial Fulfillment of the Requirements for the
Degree of Master of Science in Logistics Management

By

James M. McClaugherty, BA
Captain, USAF

Gregory J. Niemiec, MA
Captain, USAF

June 1979

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This thesis, written by

Captain James M. McClaugherty

and

Captain Gregory J. Niemiec

has been accepted by the undersigned on behalf of the faculty of the School of Systems and Logistics in partial fulfillment of the requirements for the degrees of

MASTER OF SCIENCE IN LOGISTICS MANAGEMENT
(ACQUISITION LOGISTICS MAJOR)
(Captain James M. McClaugherty)

MASTER OF SCIENCE IN LOGISTICS MANAGEMENT
(Captain Gregory J. Niemiec)

DATE: 13 June 1979


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Chapter 1

INTRODUCTION

Considering its broad scope and bearing on the economic well being and security of the U.S. [United States], its friends, and allies, it is especially important at this time in our history that the FMS [Foreign Military Sales] program be allowed to find its constituency equilibrium level while being effectively controlled by the Department of State and efficiently managed by the Department of Defense [DOD]. For if we lose such a program through the inability to adjust politically, apply effective policy, or manage operations, we would surely abrogate an important world leadership responsibility [11:64-65].

Arms transfers¹ have become big business in every sense of the word. Rising in exponential fashion from the inception of grant aid following World War II, sales from 1950-1976 amounted to \$56.9 billion. Yet even that figure pales when compared to the \$11.3 and \$13.2 billion that was sold during 1977 and 1978, respectively (34). With this

¹Reference to "arms transfers", unless otherwise specified, include the following:

- governmental transfers, whether by grant or sale, of goods and services to the armed forces of foreign countries;
- international commercial transfers of articles designed, modified or adapted for military use (including components) and related technical data; and
- international transfers, either through governmental or commercial channels, of data, know-how and technical assistance for the production of military equipment (40:7).

increased dollar value has come a concomitant rise in the complexity of the individual FMS cases. From the simple modus operandi symbolized by the executive agreement between President Roosevelt and Prime Minister Churchill in 1940 which transferred 50 aging destroyers to Great Britain in exchange for 99 year leases on certain British territories (35:2), we have evolved to a more intricate methodology involving practically all levels of the Federal government in sales of our most sophisticated and expensive weaponry. The advent of coproduction, codevelopment and accompanying offset arrangements has only added to the intricacy.

This escalation of activity has not gone unnoticed. The sheer dollar volume of the program, as well as its recent expansion into some sensitive centers of power--Iran, Israel, Saudi Arabia, Egypt--have brought arms transfers heightened international visibility. In the U.S., the frequent utilization of FMS as an instrument of foreign policy has increased the attention of Congress and the President. Congress, for its part, culminated a long line of legislative enactments in this area with the International Security Assistance Arms Export Control Act of 1976. This legislation, designed to give Congress better control of the FMS process, required that sales of articles

and services totaling \$25 million or more, or defense equipment of \$7 million or more, must be submitted to Congress for approval (48). The practical effects of this Act were to involve Congress in the very minutiae of the FMS process as hundreds of individual transactions each year would be presented to Congress before contracts could be signed or export licenses issued.²

Meanwhile, President Jimmy Carter announced his own philosophy on arms transfers. In a major address on 19 May 1977, President Carter declared that in the future "the burden of persuasion will be on those who favor a particular arms sale rather than those who oppose it [7]." Henceforth, the President continued, the U.S. would regard arms transfers as

. . . an exceptional foreign policy implement to be used only in instances where it can be clearly demonstrated that the transfer contributes to our national security interests [36:1].

Paradoxically, in the four months subsequent to his statement, the Carter administration transmitted 45 arms sale notifications to Congress involving 18 separate countries, and goods and services worth over \$4.1 billion (4:iii). It might well be argued that this flurry of action represented

²This system, as one study has claimed, buries Congress in the nuts and bolts of administration rather than permitting it to focus on broad policy choices (40:26).

transactions that were well along before his administration and could not be halted without severe diplomatic repercussions. Yet the confusion over U.S. arms sales continues as evidenced by the 1978 Camp David Middle East peace initiative which was sealed with a record \$4.8 billion arms package, all this by a President who insisted that the world's largest arms seller could not be the leading champion of peace (13:60). What all this implies, in the final analysis, is that arms sales will continue to play a substantial role in supporting U.S. foreign policy and national security objectives.

Statement of the Problem

Within this increasingly critical environment, it is mandatory that the DOD acquisition community understand the importance of properly administered FMS. And, as the document which actually defines the terms and conditions for these sales, the U.S. Department of Defense Letter of Offer and Acceptance (LOA) demands much of the attention. There is a need, therefore, to document and analyze the dynamics of customer-contractor-U.S. government interactions in the preparation and presentation of the LOA. This research proposes to examine that interplay with regard to the 1976 sale of 160 F-16s to Iran, code named PEACE ZEBRA.

Unfortunately, the perspective on this sale has been distorted by the recent chain of events in Iran which led to the overthrow of Shah Mohammed Rija Pahlevi and the subsequent cancellation of the F-16 sale by the new government. Although Iran was suffering from internal unrest during the time of thesis topic selection and initial research, the severity of what transpired was a surprise, not only to the authors, but also to many others more informed than us. For example, as late as August 1978, a Central Intelligence Agency (CIA) estimate flatly stated that "Iran is not in a revolutionary, or even a 'prerevolutionary' situation [33:97]."

Nevertheless, the sales cancellation in no way detracts from the utility of the topic. The sale occurred in the 1975-77 timeframe when Iran was, in President Carter's words, "one of our most important bases on which our entire foreign policy depends [47:36]." It is within that context that the reader is asked to consider the pages that follow. If in creating the historical moment as it existed, we can see the events as they were seen and dealt with by others, then this study will be all the more meaningful.

Justification

The attraction of this area and justification for research were provided by the timely confluence of three

factors. First, given this increased profile of FMS, it might be expected that considerable attention would focus on the LOA, as the "operations order" of every FMS sale, serving as the basis for agreement on what types of items are included, when and where tasks are to be performed, and how much money is involved, the LOA is a uniquely powerful document. Yet surprisingly, the first--and only--analysis and synthesis of LOA methodology encountered was done by Captain Robert Materna in 1976 (24). In this study, he cited several recurring problem factors that existed in implementing and supporting United States Air Force (USAF) major weapon system package sales. But his effort was necessarily a conceptual one, and there exists a need to examine these factors in a specific case environment.

The second factor was the involvement of the F-16. The extraordinary magnitude of the F-16 program, particularly its ambitious FMS dimension, poses tremendous management challenges. Chief among those challenges is logistical support, with problems certain to arise as the USAF attempts to meet several different delivery schedules (20). Hence the negotiations of the PEACE ZEBRA LOA are of interest as a case study of how USAF program managers attempted to balance the competing operational requirements of individual sovereign air forces to achieve maximum, collective mission readiness.

The final factor which lent interest to this study was the country of Iran. Blessed with rich oil resources and situated as both a strategic buffer against Soviet ambitions in the Mideast/South Asia and as an impediment to the Soviet Union's historic desire for a warm water port, Iran had become an increasingly important actor on the international stage. Because of that heightened stature, Iran also enjoyed a special status with the U.S. that proved very influential during the sales negotiations. Thus, one cannot fully understand the PEACE ZEBRA story without comprehending the significance of Iran in America's national security at the time of the sale.

The letter of offer and acceptance. One of the most complex and unique processes in the Air Force is that of planning and implementing an FMS. When foreign countries buy a major weapon system from the U.S. Government (USG), an LOA must be prepared. The preparation of the LOA is very important as it is the instrument which ties the entire FMS cycle together.

The sequence for the LOA preparation follows (24: Ch.3). First, a customer's request must have the approval of the State Department. Once received by the appropriate DOD agency, the request is then evaluated to ensure that the proper information is included (i.e., quantity,

configuration, delivery schedule, operational/maintenance/supply concept, etc.) prior to processing (52:p.4-3). Next, a case designator is assigned and a request is sent to the appropriate agencies for a Price and Availability (P&A) study. P&A data are an estimate of costs and delivery times that are incorporated into the LOA (52:p.4-2). Continuing this sequence of the LOA process, the appropriate Major Commands (MAJCOM) and implementing agencies prepare the P&A data and send them to Headquarters United States Air Force (HQ USAF). The Air Staff then draws up the actual LOA submitting it for Congressional review as required by the International Security Assistance Arms Export Control Act of 1976 (34; 48). Once approved, it is signed and becomes a Letter of Offer.

The Letter of Offer is now sent to the purchasing country for review and signature.³ HQ USAF then issues the case and transmits it and the obligational authority received from the Security Assistance Accounting Center to the implementing USAF agency so work can begin on the actual furnishing of equipment and services. This completes the basic LOA preparation sequence.

³After the customer signs the document, it is officially known as the LOA.

The importance of the LOA as an integrating mechanism in the FMS cycle cannot be overemphasized. It is the contract that obligates both the USG and the purchasing foreign government and serves as the basis for agreement between the two on exactly what materials and services are provided, when and where they will be delivered and for how much. But the complex preparation process for the LOA, coupled with the short preparation time (maximum processing time is sixty (60) days (50:D-1) have caused numerous management problems (24:87,147).

The first synthesis of LOA methodology into one document was accomplished in a thesis done by Captain Robert D. Materna, USAF (24). In this exploratory study, several selected factors were reviewed and analyzed to provide some insight into the complex issues associated with preparing an LOA. Twelve factors were identified, and of these, four were singled out as causes of the most recurring problems (24:144). The first, initial planning during the preparation of the Offer and Acceptance, caused a greater number of recurring problems than any of the other factors reviewed (24:181).

. . . it can be stated with confidence that if thorough planning is not conducted at the very beginning of the program all subsequent activities related to the sale will be affected [24:145].

The next most important factor was the lead time for the

determination of accurate F&A data which involved a trade off between timeliness and accuracy. While high cost estimate reliability is usually insisted upon, the demand is often mitigated by a concurrent request for a minimum processing time (14). The third factor was the lack of early MAJCOM involvement during the planning and coordination of a sale. The inclusion of the MAJCOM program managers during the initial planning of the LOA is crucial to success in the implementation and support stages of the sale (19:145). The final factor identified was that of coordination during the actual preparation of the Offer and Acceptance, subsequent to the initial planning of a sale. This stage involves the identification, coordination, and performance of responsibilities among the implementing agencies during the drawing up of the DD Form 1513 (LOA) (24:145-146).

The knowledge about the complex process involved in FMS sales is still in the building stage. Hence there is a definite need for further study on one of the most important parts of that process, the LOA. Therefore, one objective of this research is to further develop and refine the ideas and problem factors identified by Materna and thus add to the body of knowledge about the FMS process. This will be done by further examining and attempting to validate Materna's factors in a case study, the sale of F-16s to Iran.

F-16 considerations. The F-16 program offers a useful example of the expansive nature and growing complexity of the U.S. FMS program. Selected to complement the air superiority features of the F-15 and to ensure U.S. air supremacy in any conflict, the F-16 program was expanded rapidly and dramatically by the inclusion of a \$48 aircraft sale to the European Participating Governments (EPG) consortium and the subsequent deal with Iran.

It was this tremendous program concurrency that worried Air Force planning officials, particularly those charged with logistical support (20). Specifically, with the Iranian sales agreement, and the delivery schedules established in USAF planning documents and the F-16 Memorandum of Understanding with the EPG, the F-16 System Program Office (SPO) faced a rapid buildup that included basing at eight different locations in six countries in 24 months (37).

A portion of the initial in-country PEACE ZEBRA briefing presented to the Iranians in September 1976 emphasized the unprecedented nature of F-16 FMS sales by drawing a comparison between the F-4 and the F-16 in numbers of countries, aircraft and percentage of USAF involvement. Table 1 depicts this relationship (37). Note that

Table 1
Comparative Logistics Support Base

Time	USAF		Security Assistance Program		Nr of Countries	
	Nr of A/C F-4	F-16	Nr of A/C F-4	F-16	F-4	F-16
After Two Years	471	188	0	111	0	6
After Four Years	1549	?	0	?	0	?
Currently	2637*	0	789	0	8	0

*Does Not Include U.S. Navy.

Source: PEACE ZEBRA Briefing Team Trip Report for the Period 1-8 September 1976.

the F-4 was in the Air Force inventory for four years before any aircraft was part of a Security Assistance Program. Since that time, eight countries have purchased 789 aircraft with much of the USAF's success in supporting these planes due to the ability to draw on the experience gained and the established buffer stock available in the USAF inventory (37). Compare that to the F-16 program. Two years after activation, six different countries were scheduled to have F-16s⁴ with no buffer stock, no support base, and very little operational experience.

It has been said that no modern fighter program faces the potential early support problems posed by the F-16 deployment schedule (20) and this potential over-extension adds further interest and importance to an examination of the Iranian sale.

Iran's position of strength. The final factor which lent impact to this study was the country of Iran itself.⁵ Iran

⁴Even with the cancellation of the Iranian sale, recent commitments to Israel will maintain this level of concurrency.

⁵Again, the reader is urged to exercise a form of historical displacement and recall that the operating assumptions under which this sale was negotiated are drastically different from those existing today. What follows recreates the situation as it existed then.

had always been an important geo-political entity. Situated astride the great land bridge between Europe, Asia, and Africa, ancient Iran was consistently in the mainstream of history. Even in 1976-1977, although occupying considerably less territory than during its Persian days of power, Iran was an important world power.

Iran's importance to the U.S. was based on political, military, and economic factors, all of which contributed to the strong bargaining position Iran enjoyed throughout the F-16 discussions. An examination of those factors will better define the genesis of this "negotiating imperative."

It is significant that eight consecutive administrations, from Truman to Carter, have concluded that support of Iran's security was in America's national interest (3). This support first manifested itself in 1953 when the CIA helped the Shah return to the Iranian throne after a brief flight abroad because of a confrontation with a political enemy (33:95). The American commitment increased substantially in 1968 when Britain decided to withdraw its forces from the Persian Gulf (19:8).

But the most dramatic display of U.S.-Iranian solidarity occurred during the Nixon administration. Upon reviewing a study on the effects of the British withdrawal from the Gulf, President Nixon opted for "regional cooperation" based on the twin pillars of Iran and Saudi Arabia

(33:94). In implementing this policy, Mr. Nixon made several personal assurances to the Shah that he could have "virtually any military or intelligence support he asked for [23:28]." This decision to sell Iran practically any weapon system it wanted was unprecedented for a nonindustrial country and, to one observer "effectively exempted those sales [to Iran] from the normal arms sales decision-making processes in the State and Defense Departments [35:18]."

Militarily and strategically, Iran also loomed large during this period for several reasons. First, because of its 1250 mile border with the Soviet Union, Iran served as a critical check and balance against the spread of Communist influence into the Near East and Indian Ocean (23:26). This "buffer" role should not be underestimated. Subsequent to the 1978 upheavals in Iran, when many observers were concerned about possible oil shortages, Energy Secretary James Schlesinger observed that the geo-political consequences of the Iranian events--sharing a common border and feeling the pressure of Soviet encroachment in other nations--"undoubtedly exceeded in importance" the impact on America's energy needs (33:95). Second, Iran's willingness to utilize its military resources to support the status quo throughout the Persian Gulf was in consonance with the Nixon doctrine which asked U.S. allies to shoulder more of

the burden for their defense. In this way, American policy in the vital Gulf area was extended without any need for direct U.S. intervention (8:336).

At least as important as the political and military considerations was the economic factor. Iran's international leverage in this area came primarily, of course, from its oil. As a frequent observer of Iranian diplomacy has noted:

The growing significance of the Gulf in Iran's foreign policy is directly related to several salient features of political, economic, strategic interest which foreign policy seeks to promote and protect. Undoubtedly at the heart of this complex of interests lies oil [53:346].

And it is a potent instrument of foreign policy. The Gulf area contains approximately 70 percent of the known oil reserves of the Free World and currently produces about 30 percent of the Free World's annual oil supply. Moreover, Japan depends upon the Gulf oil for about 85 percent of its internal consumption, Italy for 85 percent, West Germany for 60 percent, France for over 50 percent, and the U.S. for over 11 percent (19:2).

Iran has been particularly dexterous in the use of its oil policy. For example, she consistently opposed the use of oil as a political weapon in the Arab-Israeli context and refused to curtail the flow of oil to the U.S. and West Germany during the Arab oil boycott in the 1973

Arab-Israeli War. Conversely, Iran sometimes supported increases in the price of oil over U.S. protestations (15:36).

Other economic interests tied the U.S. and Iran. The \$14 billion paid by Iran to the U.S. since 1972 for military goods was a significant offset to this country's balance-of-payments deficit. Additionally, hundreds of American banks and businesses were involved in Iran (8:337).

Thus, it is against this historical backdrop that the PEACE ZEBRA sale must be considered. The U.S. held significant interests in Iran at that time, and the resulting leverage this provided Iran during the F-16 negotiations was a key element in this story.

Objectives of the Study

1. To contribute an analysis of a major weapon system arms sale to the international logistics body of knowledge.
2. To examine the actual mechanics of the LOA procedure by initially using the selected factors outlined by Materna (24):
 - a. initial planning during the preparation of the Offer and Acceptance.
 - b. early MAJCOM involvement during the planning and coordination of a sale.
 - c. coordination during the preparation of the Offer and Acceptance subsequent to the initial planning of a sale.
 - d. lead time for the determination of accurate Price and Availability data.
3. To document successes and failures of the PEACE ZEBRA LOA methodology for future arms sales.

Research Questions

The following questions were directed at accomplishing the objectives of the research:

1. What was the historical background of PEACE ZEBRA?
2. How did PEACE ZEBRA fit into the FMS process?
3. Were the four major problem factors identified by Materna present during the implementation of the PEACE ZEBRA LOA? Were any others present?
4. Extrapolating from the PEACE ZEBRA experience, can any recommendations be made that will assist future FMS practitioners?

Research Methodology

Given the objectives of this study, the method of collecting and analyzing data used to achieve the research objectives and answer the research questions will be outlined. First to be presented is the data collection plan which describes the information gathered and the sources of that information. Next is the research design which was the approach used to collect and analyze the information identified in the data collection plan. Finally, an overview of the rest of this research report is included.

Data collection plan. There were several types of qualitative information readily available which were pertinent to answering the research questions and objectives.

First was the Congressional Quarterly Almanac. This publication provided a concise summary of Congressional hearings dealing with the PEACE ZEBRA sale.

Next, the uniqueness of PEACE ZEBRA was a result of two particular factors. First was Iran and our relationship with her at the time of the sale. Sources of information on Iran were found in government publications, unpublished research papers, the Area Handbook for Iran and various books. Numerous magazine and newspaper articles also chronicled recent developments there. The second factor was the F-16 program with its multi-national complexities. The main source documents for the F-16 program were located in the F-16 SFO. Also used were unpublished research papers and interviews with SFO personnel.

In addition, the LOA and its contents and role in the FMS cycle were a vital part of the information needed to answer the research questions. The principle sources for data on the LOA process were the various Military manuals and regulations, including the Military Assistance and Sales Manual (MASM) and AFM 400-5 entitled Foreign Military Sales, Captain Materna's thesis, notes from the International Logistics Overview course, taught at the Air Force Institute of Technology (AFIT), and other publications or reports dealing with International Logistics.

Finally, data on the actual LOA preparation and sale of F-16s to Iran had to be collected. The sources of this information include various F-16 program documents such as the F-16 FMS Master Plan, team trip reports for both the Presentation and Weapon System Planning Teams, early PEACE ZEBRA correspondence and contractor documents. Other important information on the actual sale was collected from the individuals involved. Their experience and knowledge were invaluable in completing the data collection. Most of the interviewees were members of three organizations: the F-16 SPO, and Air Force Logistics Command (AFLC), both located at Wright-Patterson Air Force Base, OH; and the Directorate of International Programs⁶, part of the USAF Headquarters Staff at the Pentagon.

Research design. Much of the data pertaining to the sale of the F-16 to Iran was qualitative in nature and located either in government documents or with Air Force members who were personally involved in the PEACE ZEBRA project. This information was amenable to a historical synthesis/⁶ research question type of analysis. The data gathering and analysis went through several stages. First, there was a

⁶Formerly Directorate of Military Assistance and Sales (HQ USAF/DGF), currently HQ USAF/PAI.

search for pertinent documentation concerning the early phases of PEACE ZEBRA. Once located, each document was then reviewed for relevancy to Materna's problem factors and any other potential problem areas. Most of the PEACE ZEBRA information collected during this documentation review stage came from the F-16 SPO, International Logistics Center (ILC), AFLC, and the Air Staff. This review established the foundation upon which the next stage of the research was built, that of the initial analysis.

The initial analysis interpreted the data gathered. Several of Materna's factors were identified as potential problem areas. In addition, three other problem areas surfaced during this analysis which were added to Materna's four factors for study. These additional problem areas were contractor involvement, program concurrency, and political constraints.

Initial analysis complete, the interview stage began. Key participants were selected as potential interviewees while questions were formulated for the interview itself. A partially structured interview format was chosen. This method used standardized questions, contained in Appendix A, supplemented with more specific questions tailored to each respondent's particular experience and knowledge of PEACE ZEBRA.

Interviews were conducted on a non-attribution basis from April through May of 1979. Those interviewed, along with their positions held at the time of the PEACE ZEBRA sale, are listed below:

1. General Bryce Poe II, Commander Air Force Acquisition Logistics Division.
2. Lieutenant General George Rhodes, Vice Commander, Air Force Logistics Command.
3. Major General James E. McInerney, Jr., Director of Military Assistance and Sales.
4. Major General James A. Abrahamson, Director of the F-16 System Program Office.
5. Colonel Del H. Jacobs, Deputy Director of the F-16 System Program Office.
6. Colonel Thomas Arnold, Deputy Director of Military Assistance and Sales.
7. Colonel Chester Cavoli, Staff Officer, Directorate of Military Assistance and Sales.
8. Lieutenant Colonel Mike Clark, Chief, International Programs Division, F-16 System Program Office.
9. Lieutenant Colonel Russ Sanders, Staff Officer, Directorate of Military Assistance and Sales.

These interviews were essential not only for a proper interpretation of the information already gathered, but also for the new insights and data which were revealed.

The last research stage was synthesis. Here the new information gathered from the interviews was reviewed together with that previously obtained. Out of the perspective gained from the combined data came the final

interpretations and recommendations. Thus were the successes and failures of PEACE ZEBRA documented.

Thesis format. This thesis is organized to provide the reader an orderly presentation of the factors critical to the analysis of PEACE ZEBRA. Subsequent chapters will be arranged as follows:

Chapter 2, "Phases and Management Tools of a USAF Foreign Military Sale", will include a description of the FMS cycle for a major USAF weapon system sale. The cycle will be divided into seven separate phases. This chapter will also specify where each of Materna's factors may be located in the cycle and discusses several important management tools which might be used to improve these problem areas.

Chapter 3, "The PEACE ZEBRA Story", outlines the particulars and recounts the major events of the sale. It traces the sale through the phases of the FMS cycle from Iran's initial interest to the signing of the first two LOAs.

Chapter 4, "Analysis and Assessment", then breaks down the sale for analysis by delving into each phase and scrutinizing the associated problem factors. By analyzing the data, a determination was made as to the substance and severity of each problem area.

Chapter 5, "Summary, Conclusions, Recommendations," reviews the four research questions and answers each specifically. Included are a synthesis of the historical background, PEACE LEBRA story, analysis of each problem factor, recommendations and areas for further study. The research objectives are reviewed and a short summary of the research is presented.

Chapter 2

PHASES AND MANAGEMENT TOOLS OF A USAF FOREIGN MILITARY SALE

INTRODUCTION

In this chapter, the cycle of a major USAF weapon system sale is divided into several major phases. Each phase is defined and the events which take place along with some of the more important tools used by the Air Force to implement and manage a sale are described. This chapter also correlates each of the basic Materna problem factors outlined in Chapter 1 with the FMS cycle.

Throughout this chapter, the differing roles of the State Department and DOD should be remembered. The President and State Department are responsible for: determining the eligibility of foreign governments to make FMS purchases; the general direction of sales, including whether a sale will be made to the country; and the scope of the sale (48). The DOD, on the other hand, is responsible for assisting in determination of customer requirements; procurement of military equipment including contracting, contract management, production and delivery; providing training, construction and logistical support; and finally, billing and collection of payments (12:III-4).

THE FMS PROCESS

How does a weapon system such as the F-16 get from the manufacturer to another country? There are basically two methods. The first is a direct sale between the foreign government and a U.S. contractor. Control over Commercial Sales is exercised by the issuance of an export license by the Department of State. However, the Arms Export Control Act of 1976 states that Commercial Sales are prohibited for major defense equipment of \$25 million or over (except to North Atlantic Treaty Organization (NATO) countries) (48).

Because of this rule and other exceptions to a direct sale, government-to-government sales constitute two-thirds to three-fourths of all U.S. Military Export Sales (49:C-3). In a government-to-government venture (with which this thesis is concerned) the USG and the customer country negotiate and sign an agreement (LOA) in which items are procured from the contractor(s) by the DOD and then transferred to the foreign government (FG). Payment is accomplished in the same manner with the USG being an intermediary between the FG and contractor (34).

The cycle of a government-to-government sale can be broken down into several sequential phases (See Figure 1). Although these phases have never been officially defined

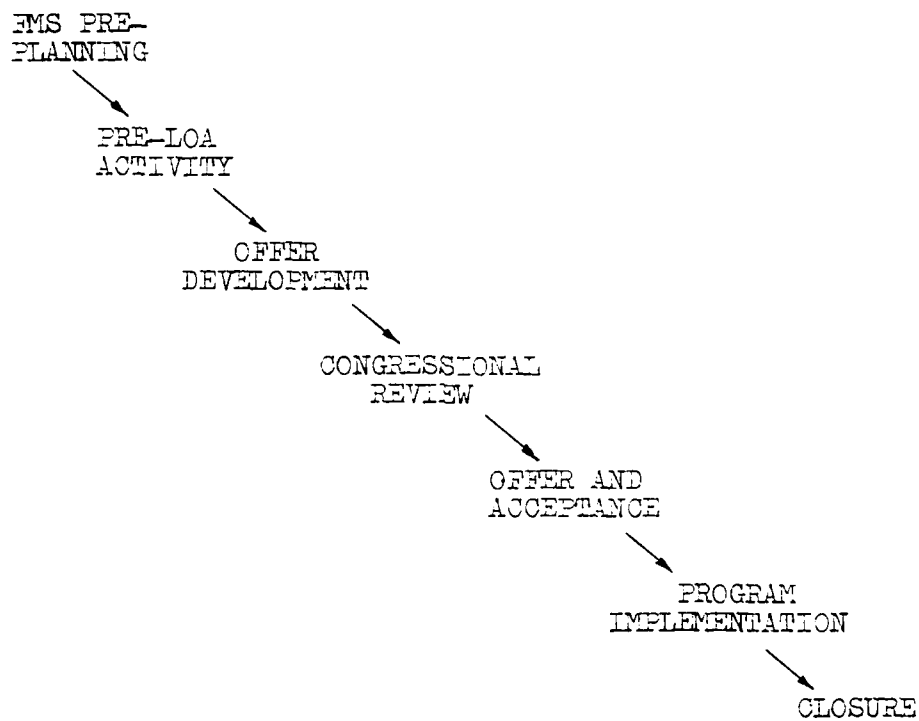


Figure 1
FMS Phase Chart

a chart drawn up by the Directorate of International Logistics, Air Force Acquisition Logistics Division (AFALD) (25) was used as the source for the discussion which follows.

Each phase will now be described and defined as it existed during the time of the PEACE ZEBRA sale (1975-mid-1977).

FMS Pre-Planning

The FMS Pre-Planning phase deals with weapon systems still in early acquisition or development. If a weapon system being acquired by the USAF has a reasonable chance of being bought by a foreign government, several important questions must be asked: What quantity is expected to be sold to foreign governments? What kinds of different facility production enhancements are required? How does this affect the production schedule?

These and other questions must be answered in a plan drawn up by the Program Office with contractor assistance in order to be able to deliver fully supportable systems without impacting future USAF readiness (1:p.21-4). This plan includes program entry times for new FMS customers, revised production schedules, logistical support, lead time for training and spares, and other support. Called an FMS Master Plan, it explains how each major weapon system's future FMS sales are to be handled and attempts to

anticipate future problem areas in production, expansion, tooling, lead time, and support.

The FMS Pre-Planning period is designed to provide a foundation upon which future sales can be smoothly implemented. It is important because, done properly, it causes the different implementers such as Air Force Systems Command (AFSC), Air Force Logistics Command (AFLC), Tactical Air Command (TAC), Air Training Command (ATC), and the contractor to consider the effects of early FMS involvement on the program.

Yet despite this importance, one of the most troublesome problem factors defined in Materna's thesis was the lack of adequate initial planning during the preparation of the Offer and Acceptance (24:144).

The FMS Pre-Planning phase should start at the beginning of a weapon system's development and continue until a country expresses a sincere desire to buy the system. Further, this interest may be shown at any time throughout the development and acquisition cycle. Thus, the Planning phase and the Pre-LOA phase may have some overlap as planning continues to be updated and revised as more facts about the buy become known.

Pre-LOA Activity

Pre-LOA Activity is defined as the time from when a foreign government is first seriously considering buying

a weapon system to the time the actual sale request is approved by the State Department and transmitted to the appropriate military service. Included in this period are such events as requests for Planning and Budgetary (P&B) data and corresponding replies; visits by representatives of the potential customer to the USAF or contractor; determination of commercial availability; development of Memorandums of Understanding (MOU), if any; and the actual approval or disapproval of the request by the State Department (1:p.21-7). Some negotiations between the two governments also take place regarding what to buy, how much is involved, and if the government-to-government agreement best fits the particular situation.

Once a country's interest has progressed to a satisfactory point, it submits a Letter of Request to the USG. The channels for sending requests and receiving approval differ depending upon the category of the country. If a category A country, the request is forwarded directly to the appropriate U.S. Military Departments since the country's eligibility to purchase defense services and articles has been previously approved. If category B, the country must forward the request through diplomatic channels for State Department approval (5:p.3-2).¹ In either case,

¹At the time of the sale Iran was classified as a B country for buying major or capital end items (5:A20-1).

once the request is finally received at HQ USAF--the Directorate of International Programs--an acknowledgement is sent to the country within five days and a case identifier is issued (50:D-2; 51:p.5-1).

During this phase of activity a Weapon System Planning Team (WSPT) may be organized and sent to the country to gather more data on the requirements for the particular sale. These teams may also be formed during any program phase as will be demonstrated during the PEACE ZEBRA negotiations.

As noted earlier, the problem factor of initial planning sometimes spills over into this phase, but the problem of early MAJCOM involvement during the planning and coordination of a sale must also be investigated here. This early involvement is necessary to effectively implement and support the sale, and it was Materna's contention that the USAF was deficient here (24:144).

Offer Development

The next phase of an FMS is the development and preparation of the LOA. As the acknowledgement of the country's request is prepared and a case designator issued, the Air Staff requests P&A data from the implementing commands. Accompanying the request for P&A data should be ground rules and accurate country requirements

developed by the customer country and the WSPT. The Air Staff may appoint a lead command² such as AFLC or AFSC to collect the P&A data and draw up the LOA (38:1).

Once tasked, the Commands appoint a program manager who collects the P&A data, and based on the sale requirements, submits estimates of pricing and availability for items or services for which he has management responsibilities. For example, developmental systems are usually AFSC's responsibility, spare parts belong to AFLC; ground crew and maintenance training is done by ATC and air crew training is TAC's responsibility. From MAJCOM level, the task usually filters down to the level which actually works with the needed data, e.g., the SPO in AFSC and the Air Logistics Center (ALC) in AFLC (52:Ch.2).

In older systems, the P&A data are compiled from recent contracts and past records. However, it is much more difficult to determine accurate P&A data for newer systems. With no established data base, no firm knowledge of support requirements, and many of the items often still in research or development, P&A estimates are extraordinarily "soft". In addition, there is always the possibility of updating and revising the system as more testing is completed,

²This management concept is discussed later in the chapter.

thereby making some long lead time items and spares obsolete. To compound the difficulties other factors are also added, including inflation rates, special management surcharges etc. Thus, the determination of P&A data on weapon systems, whether mature or still in development, more closely approximates an art than a science.

The P&A data are put together in 30 days (maximum) at the MAJCOM level and forwarded to the Directorate of International Programs, where it is then reviewed, approved and placed into the correct LOA format for the particular sale (52:p.4-1). Thus the estimated price, delivery, and financial schedules in the LOA should be based on the P&A data submitted by the MAJCOMs.

During this phase of LOA development, it is sometimes necessary to start procurement of long lead time items for the customer country if the proposed delivery date is to be met. Another management tool, the Letter of Intent (LOI) can be sent during this phase to the customer for review and signature. Although not actually implemented until Congressional approval of the sale is given (if necessary), the LOI would enable the USG to start the actions necessary to insure the on-time delivery of the long lead items essential to a supportable, working system.

Materna's other two problem factors identified in Chapter 1, (lead time for the determination of accurate

F&A data and coordination during the preparation of the Offer and Acceptance subsequent to the initial planning of a sale) will, if present, occur in the Offer Development phase. Although 30 days maximum is given for F&A data (52:p.4-1), less time than that is often available due to diplomatic and political pressures attempting to hasten the sale.

Similarly, the coordination of the MAJCOMs subsequent to the initial planning is important in setting up implementing responsibilities for each command. While the preparation of the LOA by the Air Staff should take a maximum of 60 days (including collection of F&A data), this entire phase may be prolonged by the unavailability of country and sale requirements (52:p.4-1).

The Offer Development phase ends once the LOA is completed.

Congressional Review

Congressional review is required if any FMS case is projected to be in the amount of \$7 million or more for major defense equipment or if any FMS case totals \$25 million or more (48). The Defense Security Assistance Agency (DSAA), as a courtesy to Congress, tries to give them at least 20 days of informal pre-notification on these sales (34). When the LOA is finally completed, it is

formally submitted to Congress. Concurrently, an unsigned copy is also forwarded to the customer country for review. If, after a waiting period of 30 days, Congress has not adopted a concurrent resolution objecting to the proposed sale, the LOA can be officially issued (48).

Offer and Acceptance

This phase starts once the LOA has been prepared and, if necessary, approved by Congress. The DD Form 1513 (the LOA) is signed by the Directorate of International Programs, countersigned by the Comptroller, DSAA and forwarded to the customer. An Air Force team, composed of experts familiar with the specific weapon system, the P&A data, and the LOA, is the preferred method of presenting the offer, although other methods may be mutually agreed upon (1:p.24-24). The pricing data, delivery schedule, end items, support and terms of agreement are explained by the team. The customer then has 60 days³ in which to review, sign and fund the LOA since the data included in the offer may quickly become outdated (52:p.4-5). An authorized customer country official must sign the LOA and return it to the Directorate of International Programs. Any initial funding required would also be forwarded to the Air Force

³It was 90 days during the time of PEACE LIBRA (51:p.5-3).

Accounting and Finance Center/Security Assistance Accounting Center (AFAPC SAAC) within the time limit specified on the DD Form 1513.

Program Implementation⁴

This phase begins with the reception of the obligational authority at the Air Staff. Only then can the Directorate of International Programs issue a case directive. This should be accomplished within five days of receipt of both the signed LOA and all required initial funding (52:p. 4-10).

The importance of any advance planning and coordination becomes apparent in this phase with the involvement of many agencies and commands.

For example, during a typical major weapon system sale, AFSCJ would be responsible for equipment procurement and contractor performance, as well as coordination with AFEC, TAC, and ATO on various details of logistical support, aircrew training, and aircraft deliveries. AFEC would be concerned with supporting the weapon system, ground support equipment, spare engines, contract technical services, and initial publications. Meanwhile, ATO would ensure proper training for the system is accomplished while TAC dealt

⁴ Although this thesis deals primarily with planning, coordination and problem factors inherent in the first five phases, the last two phases are briefly described to give the reader the flow for the entire FMS process.

with delivery schedules and advanced flight training as required. One other actor plays an important role. The Air Force Accounting and Finance Center (AFAFC), who manages FMS funds for the Air Force, would send bills, collect cash, and manage the FMS trust funds and administrative fees (12:x-30.1,31.1).

The Program Implementation phase can also be further subdivided into two parts: the initial procurement of end items and support, and any other follow-on support necessary to keep the system operational over its projected life. Any follow-on support usually requires a new IOA.

Closure

Upon termination of all the separate cases involved in a weapon system package (i.e., all services rendered and articles delivered and paid for), the account for that particular sale is reviewed, audited and then closed out.

MAJOR MANAGEMENT TOOLS

Introduction

Now that the FMS process with its seven general phases has been described, some of the management tools previously mentioned will be explained in more detail. These tools were available to USAF FMS officials in their efforts to encourage effective management of this sale. These tools were the FMS Master Plan, the team concept, the IOI, the lead command concept, and the IOA.

Master Plan

The initial planning accomplished during a major weapon system sale should include such things as estimates of FMS sales, corresponding production schedules, training and support. These parameters are outlined in an FMS Master Plan and can be used to forecast and deal with problems which arise from additional customers. With this document, the timing for new customers over the next five to seven years can be planned, taking into consideration production and spare lead times, retooling, and potential delivery schedules. The implementing command makes up the FMS Master Plan in consultation with the prime contractors.

Team Concept

Another major management tool for FMS is the team approach. There can be a Presentation Team which can take either the initial broad outlines of the FMS program or a prepared and approved LOA to the foreign customers and brief them on the program's scope, including both price and availability. The team should include experts in the particular weapon system from the Directorate of International Programs, AFSC, the SFO, AFPC, PAC, AEC, the contractor, and other major participants. Since no one individual is familiar enough with any particular LOA to answer all the

questions a country might pose, this team approach has become more desirable (1:p.21-14).

Another tool is the WSPT. This team may go into the country to gather data needed to plan each sale more specifically. They gather facts on: aircraft configuration; operational and basing concepts; training, supply, maintenance, facilities and manpower requirements; and financing. These teams, like the Presentation Team, are usually composed of experts from HQ USAF, AFLO, AFALD, AFSC, the SPO, ATC, TAC, and any other major users of the system (52:p.4-18). The WSPT can be formed during any phase of the FMS program for a customer country; however, most benefits come from visits during the Pre-LOA phase of FMS activity (1:p.21-2; 25).

Letter of Intent

The Letter of Intent (LOI) is a special management tool that precedes the LOA and is used to finance procurement of long lead time items (52:p.4-9). This document provides the USAF with the funding authority to proceed with the early contractual, tooling, and production activities necessary to implement the projected aircraft delivery and country support programs. The LOI can be used in either the Pre-LOA Activity phase or the Offer Development phase. It becomes more critical during the latter, however, since

the LOA would be too late to allow the procurement of long lead time items in time for requested delivery dates. However, if Congressional review and approval is necessary, the LOI cannot be implemented until the Congressional review is successfully completed unless a special exemption is granted by the Director of the Defense Security Assistance Agency (42:IV-18).

Lead Command Concept

The Lead Command management concept is a tool which may be used within the Air Force to designate a primary command (usually the main implementing command) to collect P&A data (38:1). The lead command may be designated by the Air Staff at any time in the program. For example, AFSC would probably become the lead command for a weapon system still under development, while AFLO might be assigned weapon systems which are no longer in production or subsystems still being produced.

Letter of Offer and Acceptance

The DD Form 1513 is the contractual agreement between the USG and customer country. Prior to the Air Force taking action to provide requested material and services, an LOA (or LOI) must be signed by the foreign government. The LOA uses P&A data and attempts to accurately reflect both the prices the customer country will pay

and the times that delivery will take place. Additional terms and conditions are incorporated by attachment when appropriate (51:A4-5). Signed by both governments, it should contain all items involved in the sale (unless certain items are broken out and identified in separate LOAs). Nevertheless, the prices and delivery schedule are estimates only and this must be kept in mind. On the back of every DD Form 1513 this important condition is stated:

The price of items to be procured shall be at their total cost to the USG. Unless otherwise specified, the cost estimates of items to be procured, availability determination, and delivery projections quoted are estimates based on current available data [24:76].

SUMMARY

In conclusion, the seven phases of the FMS program have been reviewed along with many of the major management tools available during these phases. Several important facts must be emphasized. First, although the FMS process has been divided into seven phases, every FMS sale does not necessarily follow these phases in order. In fact, many of the phases can happen concurrently.⁵ For instance, Pre-LOA

⁵Several strict cause and effect relationships do exist however. For example, the Congressional review phase, if required, must precede program implementation.

Activity and Offer Development can merge into one phase as happened during PEACE ZEBRA. Thus, the phases chart is simply a guide or model with which to begin an analysis or understanding of FMS. Variations occur in practically every sale.

The next aspect of the FMS process to keep in mind is the flexibility of the FMS management tools. The WSPT does not have to be formed in the Offer Development phase. Moreover, several teams may be sent as more areas need definition. Similarly, with the exception of the LOA itself, an FMS sale could conceivably be consummated without using any of these tools.

Finally, the organizational context of the FMS process must not be forgotten. The DOD does not make policy or cannot legally advocate any sale to a potential customer. Its role is to advise during negotiations and to implement once the decision to buy has been made. The policy decisions rest with the State Department and the Office of the President, not with the DOD. This distinction becomes very important early in the PEACE ZEBRA story.

Chapter 3

THE PEACE ZEBRA STORY

This chapter provides a brief narrative of the key events which transpired during the PEACE ZEBRA negotiations. To remain consistent with Chapter 2, it is organized around the framework of the previously discussed key FMS phases. Additionally, unless otherwise referenced, the details recounted were gleaned primarily from the formal interviews conducted. But due to the non-attribution nature of those interviews, specific references will not be made.

Iran Expresses an Interest

In an effort to upgrade his F-5 fleet and complement Iran's newly acquired F-14s, as well as a further step in his oft-proclaimed drive to restore Iran to its glory days of Persian stature (2:44), the Shah began expressing interest in the F-16 early in 1975. In August, of that year, representatives from General Dynamics (the airframe manufacturer) and United Technologies (the engine company) met with the Vice Minister of War for Armaments of Iran, General Hassan Toufanian, to discuss F-16 purchases and to offer a proposal for F-16 coproduction. Although General Toufanian demurred on coproduction, he did evidence interest in a LOA for 160 aircraft (27).

Iran's intentions were formalized in early 1976. On 15 February 1976, General Toufanian sent a letter to Mr. David Lewis, General Dynamics' Chairman of the Board, announcing Iran's desire

. . . to enter into negotiation with you either directly or through the Government of the United States, for the procurement of 300 each F-16 aircraft with all required spares and support [45].

General Toufanian's letter mentioned the prospect of possible coproduction arrangements, but this option was later dismissed due to certain Iranian industrial shortcomings.

Iran amplified its "firm intention" for 300 aircraft in a 16 March 1976 letter to the Chief of the Armish Military Assistance Advisory Group (MAAG), Teheran (46). In this letter, General Toufanian outlined the specifics of Iran's request:

--the "first purchase" will be 160 aircraft (136 F-16As and 24 F-16Bs) with a logistic support package and services.

--deliveries to start mid-calendar year 1979 with a maximum delivery rate of eight aircraft per month.

--a 26-month initial spares package would be required.

--eight squadrons are planned: seven operational squadrons with 18 F-16As and 2 F-16Bs each, and one Combat Crew Training Squadron with 10 F-16As and 10 F-16Bs.

--three main operating bases (MOB) are planned with three squadrons at each of two bases and two squadrons at a third base.

FMS Pre-Planning

Although the Air Force had begun to develop a detailed FMS Master Plan early in 1975 to address possible third country F-16 sales, attention really began to focus on this document after Iran's formal announcement in March 1976.

The reason for this attention was a stark inconsistency between the existing Master Plan (approved only by the Air Force at that point in time) and the Iranian request for mid-1979 aircraft deliveries (43). Because of the relative immaturity of the F-16 and the concomitant risks involved in bringing third-country participants into the program too early, the Air Force had recommended July 1981 as the earliest date for FMS in-country deliveries. This date was a by-product of an AFLC position predicting a 42 month lead time for acquisition of the necessary assets to support the program through activation at the first in-country base. It was the Air Force's contention that a mid-1981 date would minimize any possible competition for spares, as well as reduce risks to USAF readiness.

Nevertheless, Iran was insistent about early deliveries and lines were quickly drawn on the issue. An Air Force Office of the Secretary of Defense, Installations

and Logistics (OSD/I&L) meeting on 24 March 1976 and a subsequent 11 May 1976 OSD/I&L memo discussed a plan calling for an accelerated schedule that would provide ten training aircraft to a Continental United States (CONUS) training base beginning in March 1979 and Iranian in-country deliveries beginning July 1980 (17). But this program was not recommended by the Air Force. AFLC argued that early deliveries raised real support problems and suggested "probable adverse impacts on the US/EPG program [28]." The TAC, while acknowledging that the advanced training schedule was feasible, was nonetheless nervous about the support issues raised by AFLC. Moreover, TAC was extremely busy with its own force modernization program involving the introduction of the A-10, F-15 and the F-16.

The debate was not confined to the MAJCOM level. In a memo to the Air Force's Deputy Chief of Staff, Research and Development (AF/RD) and the Deputy Chief of Staff, Systems and Logistics (AF/LG) on 25 May 1976, Mr. Gordon Knapp, OSD/I&L, observed that the Iranian program "could compete with both USAF and EPG programs for scarce logistical resources" and asked for a briefing explaining "the rationale that neither the USAF nor EPG programs will be adversely affected [29]." Indeed, as late as 8 June 1976, there was no Air Force consensus on the impact of the Shah's request to buy F-16s (44).

Not unexpectedly, General Dynamics was eager to consummate the sale. Flush with their victory in the "Arms Sale of the Century," the company's marketing executives had predicted upwards of 4000 additional aircraft sales (42). Iran was important to maintaining their sales momentum and the company's advocacy briefing on this sale stressed a broad spectrum of benefits ranging from economic (improved Balance of Payments, jobs for U.S. workers, tax revenues to individuals and corporations) to the political (no sale would jeopardize U.S. influence and leadership in the Persian Gulf) to the strategic (our need to protect oil resources and access routes to Europe, Japan, and the U.S.; Iran's self-defense efforts help reduce the U.S.'s Indian Ocean defense burden) (18).

General Dynamics sought to assuage the concerns of Secretary Knapp in a 15 June letter which revealed the company's success-oriented philosophy despite the extraordinary management challenges already facing it with the EPG and USAF programs:

We recognize that in the F-16 program, with the addition of PEACE ZEBRA, there would be seven bases activated in six countries within a period of 18 months We believe, however, that this schedule of base activation which provides a minimum of four months to a maximum of six between base activations will provide a more efficient and cost effective use of personnel and resources. Moreover we would expect that the EPCs [European Participating Countries] will develop an early proficiency which

should ensure success of the four bases in Europe. We studied the problems which have occurred in the F-15 program and believe that the early recognition of the need for interim contractor support, early spares acquisition and additional support equipment will prevent similar problems from developing in the F-16 program.

General Dynamics' letter closed with a warning that

... anything less than the schedule proposal [March 79/July 80] will endanger the sale of PEACE ZEBRA, which in turn will make much more difficult the further sales to other third countries [4].

The final Air Force position, complete with support from the Secretary of the Air Force, was transmitted to the Deputy Secretary of Defense via a DSAA memorandum on 30 June. The bottom line was still adherence to the July 1981 date (39).

Nevertheless, in July the Air Force was directed to go with the accelerated schedule as an "exception" to the Master Plan (9).

Pre-LOA Activity/Offer Development

USAF presentation team. In response to a request by the Government of Iran (GOI), the Air Force sent a Presentation Team in-country from 5-7 September 1976 to discuss the outlines of the proposed sale. Headed by Lieutenant General Bryce Poe II, Commander of the Air Force Acquisition Logistics Division, the team consisted of representatives from AFSC, AFEO, the Air Staff, and OSD (37). The team was

given a Terms of Reference by DSAA to guide their negotiations. The most important of these guidelines included:

- use of an approved briefing script.
- limit quantity offered to 160 aircraft.
- sale is on a government-to-government FMS basis.
- no coproduction.
- no program approval by U.S. government until the Congressional Review process has been completed.

The team journeyed to Iran with two purposes in mind. The first was to impress upon the Iranians that their request for early delivery made the program "unique and high risk", particularly in the areas of support and skilled personnel. For example, the team reiterated that the possibility of long lead items being purchased and then becoming out-dated before the first aircraft came off the production line was quite real.

The second intention was to outline the specifics of the program being offered. Even this was flavored with the first concern. Before any particulars were broached, it was again stressed that because of Iran's early entry into the program, many of the cost figures quoted were only estimates. Indeed, in many areas firm prices were not even available for the USAF F-16 program! With this foundation laid, the team proceeded with the details of the offer.

The program proposed included PEACE ZEBRA I and PEACE ZEBRA II. PEACE ZEBRA I ensured early Iranian Air Force (IIAF) participation through delivery of ten IIAF F-16s to a USAF tactical fighter training wing beginning in March 1979. These aircraft would be used initially to train USAF instructor pilots (IP) who in turn would train the IIAF and USAF IPs that would eventually form the Iranian instructor pilot cadre team. PEACE ZEBRA II called for the delivery of 150 aircraft in Iran beginning in July 1980 at the rate of four aircraft per month, with appropriate contractor support (37).

Accompanying the briefing were two LOAs and two associated LOIs for the long lead items. The prices were presented as ceiling prices with the PEACE ZEBRA I figures quoted as "firm industry commitments" (37), while PEACE ZEBRA II's prices were "estimated". Planning & Budgetary data on PEACE ZEBRA II were also included. The total cost figure briefed to General Toufanian was \$3.8 billion.

Iranian displeasure. This \$3.8 billion total did not sit well with the Iranians for two reasons. First, the figure initially quoted in U.S. news media had been \$3.4 billion, but this had been based on an estimate used in the advance notification to Congress. Unfortunately, the \$3.4 billion price had been picked up by the Iranian press and publicized widely. But the real cause for the Iranian anger was

a 13 August 1976 letter from General Dynamics to General Toufanian quoting a \$2.1 billion price tag for 300 F-16 aircraft "plus appropriate training, initial spares, and support [5]." The magnitude of the differential was not lost on Iran, and General Toufanian was ready with a sharp rebuttal to the Presentation Team's \$3.8 billion figure (6).

Interrupting General Poe's briefing, General Toufanian announced that the Shah was not interested in the F-16 at the higher price, and he launched into a denunciation of several recent U.S. FMS programs. He deplored the support of the F-14, Spruance and Hawk programs, and was generally critical of the USG attitude towards contractors taking advantage of Iran. He criticized the USG for not better controlling contractors and for not challenging FMS costs unless a U.S. requirement was involved. General Toufanian went on to say that Iran was tired of being taken advantage of despite the fact that the Shah had a letter from President Nixon promising Iran military hardware at the same price paid by the U.S. (9).

General Poe replied by pointing out that the team was there at Iran's request, that he was the only individual authorized by the USG to present F-16 program and cost data, and that he was a military professional and not an arms merchant. Then, he painstakingly outlined the differences

between the USAF and General Dynamics offers, noting the following key differences (37):

--General Dynamics estimates were at target costs, while DOD estimates were ceiling costs.

--General Dynamics used Fiscal Year 1975 dollars, while DOD quoted "then year" dollars with an average eight percent inflation rate.

--DOD estimates included the following which were absent from the General Dynamics estimates: 26 months of spares (General Dynamics included initial spares), engineering changes, in-country contractor support, provisioning costs, sustaining engineering, engine component improvement program, and developmental depot support equipment.

General Poe's candor and firmness on this issue were credited by team members as defusing the emotionalism and reversing the GOI's original intentions of turning down the sale.

The team left Iran with a "conditional acceptance" of the program as briefed. General Toufanian, however, took a hard line on costs stipulating that GOI pay the same price as the USAF with no added profit or agents' fees. Further, although Iran still maintained they were interested in 300 aircraft, they agreed to defer that issue and would present a signed LOI for PEACE ZEBRA I in October. Finally, General Toufanian praised the team for their total system package approach as well as their forthright and candid briefings on the risks and prices (37).

PEACE ZEBRA I revised. Subsequent to the Presentation Team's visit, the GOI rejected the PEACE ZEBRA I training

program as being too costly for the number of instructor pilots being trained (9), and instead forwarded a modified LOI in October 1976 (Appendix B) to provide \$41 million in funding obligation (with a \$20 million expenditure limit) for long lead items in a revamped program. Under this arrangement, 160 F-16s would be delivered to Iran beginning in July 1980. These aircraft would be less expensive than the earlier aircraft and would be acquired in conjunction with a revised training program to support training two IPs (one USAF/one IIAF) and six conversion-trained pilots (two USAF/four IIAF) by July 1980 in preparation for a follow-on training program in Iran. Five IIAF F-16 aircraft scheduled for delivery early in 1980 would augment the CONUS training base.

Congressional Review

The Department of State had informally advised Congress of the U.S.'s intention to offer the F-16 for sale to Iran on 27 August 1976 during an appearance before the Senate Foreign Relations Committee by Secretary of State Henry Kissinger. This notification was buttressed with a letter, dated 27 August, which went to Mr. Richard M. Moose, Staff Associate to the Committee on Foreign Relations (16). Formal notification of the Congress pursuant to the reporting requirements of Section 36(b) of the Arms Export Control Act (AECA) took place on 4 September 1976 (22).

This reporting requirement, the first time it had been a factor in a major weapon sale since the passage of the AECA, was taken quite seriously by the presentation and planning teams. Legal opinions extracted before subsequent in-country visits reasoned that because of these notifications, the teams could brief the GOI and present unsigned LOIs, but under no circumstances could the U.S. government act upon them until the end of the Congressional Review period. It was additionally argued that LOAs could be used in the presentation briefings, but they must be clearly marked "DRAFT" and could not be offered for signature prior to the end of the review period, assuming a favorable Congressional disposition (37). Finally, once in-country, the restrictions inherent in the Congressional Review period were thoroughly briefed to the Iranians so they understood the groundrules.

The thirty-day review period expired on 1 October 1976 without Congressional objection (10).

Offer and Acceptance

Weapons system planning team visit. To assist the IIAF in planning their F-16 program, the USAF formed a Weapons Systems Planning Team in November 1976, headed by Brigadier General George W. Rutter, Vice Commander of the Air Force Acquisition Logistics Division. The team included F-16

expertise from the Air Staff, AFLO, AFSC, TAC, the MAAG, and ATC as well as unofficial contractor participation from General Dynamics and Pratt-Whitney.

Their overall goal was to jointly establish the necessary planning factors for preparation of the LOAs. To do this, the team reviewed lessons learned from the F-14, F-4, F-5 and other Iranian programs as well as known IIAF planning factors furnished by the MAAG. With this basic understanding, the team spent 4-11 December 1976 in Iran cultivating direct counterpart relationships through face-to-face USAF/IIAF discussions.

The trip, as described later by the MAAG, "was very fruitful in giving the GOI/IIAF an in-depth review of the PEACE ZEBRA program at both the executive and working levels [30]." Specific planning factors were defined in the areas of logistical support, development/acquisition, training, manpower, and program management. Equipped with a common baseline understanding, the WSPT returned home and the USAF began to structure the PEACE ZEBRA LOAs according to the agreed upon planning factors.

Formal letter of offer and acceptance presentation. By March 1977, the USAF had constructed a PEACE ZEBRA LOA around the planning factors provided by General Rutter's WSPT and on 14 March the new LOAs were presented to General

Toufanian by Brigadier General James Abrahamson, F-16 SPO Director and his deputy, Colonel Del Jacobs. A total of six LOAs were presented based on a GOI request to separate aircraft and support costs and to identify total program requirements. While General Toufanian took the opportunity to again impress that Iran was interested in a 300 aircraft purchase plus an accelerated delivery rate of eight per month, he did not reject the LOAs as submitted.

Yet pricing was once again a sore point. When briefing the costs in then-year dollars, General Abrahamson was reminded of the Shah's desire to buy the F-16 at the USAF program cost to avoid possible adverse press coverage about the sale, i.e., U.S. gouging Iran on F-16 sale. Iran was also concerned about possible cost comparisons with the European's "not to exceed price" of \$6.091 million. Consequently, it was requested that the LOAs be rewritten in 1975 base year target dollars using USAF type factors for spares and support equipment. Part of Iran's effort to more closely align with USAF program costs was their decision to reduce spares support from 24 to 17 months. General Toufanian also requested two case deletions--aircraft delivery and training flight simulators--and further definitions of some of the explanatory notes.

The recomputations were made by AFSC (31) and on 27 May 1977, Major General James E. McInerney, Jr.,

Director of International Programs,¹ signed the revised LOAs for aircraft and support and forwarded them by courier to Iran. The LOA for 160 aircraft was valued at \$1,116.7 million in FY 75 dollars (\$1,688.9 million in then-year while the support LOA--for only 12 months, vice the 17 mentioned above--was valued at \$280.9 million in FY 75 dollars (\$392.2 million then-year) (26).

Given the headaches pricing had caused throughout the negotiations, General McInerney's transmittal letter was careful to once again explain the U.S.'s policy in this sensitive area:

The USG will use its best efforts to stay within the then year prices listed within the attached notes to the LOAs but I must remind you the escalation rates used are quite optimistic and reflect desires of the USG to attempt to control inflation. Actual experience indicates continuing inflation at a rate more aligned with that depicted on the PEACE ZEBRA LOAs presented to you in March of this year.

We all hope for the lower rates predicted by the Office of the Secretary of Defense, however the USAF must pay, and in turn charge you, for actual costs incurred [26].

On 8 June 1977, General Toufanian signed the first two LOAs (See Appendices C and D).

Conclusion

This PEACE ZEBRA overview revealed that many of the FMS management tools described in Chapter 4 were employed

¹Formerly Directorate of Military Assistance and Sales.

during these negotiations. Additionally, several of the problem factors selected for study seemed to manifest themselves amid the complex and sensitive negotiations that transpired. For example, difficulties with initial planning (the Master Plan debate), Price and Availability data (Iran's concern with pricing), the contractor (General Dynamics' August pricing letter), concurrency (the tremendous planning uncertainty), and politics (an implicit, yet central theme throughout) were all discussed. The next chapter will pursue these areas by evaluating both the utility of the employed management tools and the pervasiveness of the selected problem factors.

Chapter 4

ANALYSIS AND ASSESSMENT

INTRODUCTION

Thus far this thesis has described in Chapter 2 the broad phases of the FMS process and some of the management tools available to the FMS manager. Then, in Chapter 3, it recounted the details of the actual PEACE ZEBRA sale along with some of the key problem areas. Against that backdrop, the emphasis for this chapter shifts to an analysis of the seven selected problem factors outlined in Chapter 1 as they impacted the sales negotiations.

The discussion is divided into two sections. First, the four factors Materna noted "still warrant considerable management attention [24:146]" will be addressed. These include initial planning, early MAJCOM involvement, coordination subsequent to initial planning, and P&A data. Then the three new problem factors added by the authors after their initial analysis of the sale will be examined. These additional problem factors were: contractor involvement, weapon system concurrency, and political constraints.

Each factor will be discussed in the context of the various FMS phases with the analysis based on the structured

interviews with nine key participants in the sale as well as the authors' assessment gained during the research effort.

THE MATERNA FACTORS

Phase: FMS Pre-Planning

Problem Factor: Initial Planning

When Captain Materna identified initial planning as causing "the most recurring problems" during the implementation of a FMS program, he acknowledged that the term was "somewhat all encompassing [24:145]." This research discovered a similar ambivalence about the term which contributed to a divided opinion as to whether or not initial planning was a problem in PEACE ZEBRA (See Figure 2). Two aspects of this stage of development did stand out, however: the Master Plan and the question of adequate FMS manning in the SPO.

The Master Plan as a management tool drew universal praise. Although many of the interviewees cautioned against a tendency to view the Plan as immutable law rather than simply a useful guide, the document was lauded for its utility as a vehicle for bringing the necessary personnel into the planning stages early as well as its usefulness as a common baseline and reference point. For example, when drawing up the F-16 Master Plan, the USAF looked at the production capabilities of the major F-16 contractors, the

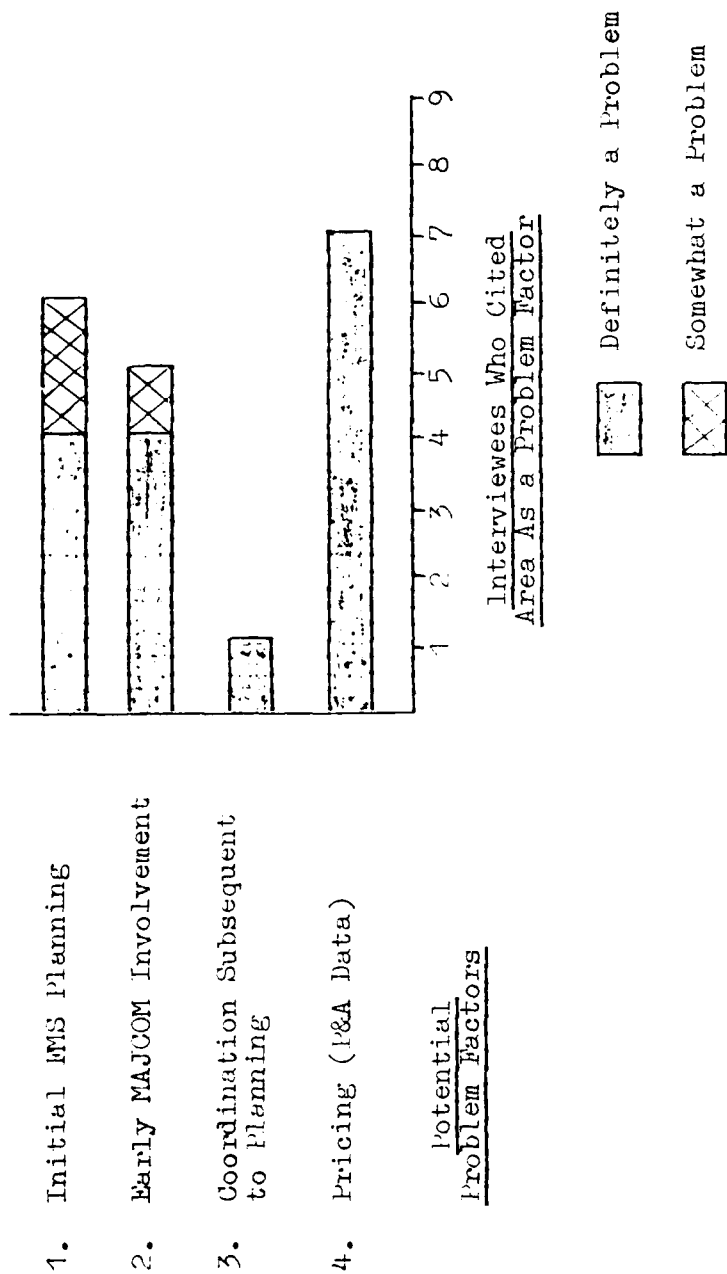


Figure 2

Problem Identification Interview Results: The Materna Factors

contractor vendors, and the suppliers of various government furnished items. The availability and scheduling of contractor and military manpower, aircrew and maintenance training, spares, and munitions were also examined (17).

Given this strong consensus, a Master Plan appears mandatory for all new systems having a foreign sale potential. While such a suggestion seems self-evident given today's tremendous FMS activity, the F-18, for example, was without such a Plan at the time of this writing.

Furthermore, the Master Plan needs to expand its definitional framework. In the case of the F-16, the Plan was justified on the basis of production capability, logistical support, and other technical reasons. However, it was suggested by several individuals that the criteria be expanded to include "system maturity," a parameter which addresses the stability and predictability of the system's design, performance, and supportability. Although a more theoretical criterion and therefore less quantifiable, it was stressed that any FMS undertaking consummated before some sort of performance history had been compiled on the system risked expensive and often times embarrassing errors in subsequent support and training rearrangements.

This said, however, it is nevertheless a reality of FMS that sales are sometimes negotiated on little or no performance history. In such cases, it is critical that the

most new country be advised of this so that they fully comprehend the uncertainty inherent in the planning process.

Finally, the Master Plan needs to be considered as early as possible in the acquisition process. It must be "in anticipation of" rather than "in reaction to" possible sales if it is to be recognized as a useful planning tool rather than an after-the-fact rationalization. It might be argued that the Master Plan's importance is negligible anyhow when its message can be seemingly ignored as happened in PEACE ZEBRA. But even if overturned, two significant benefits accrue to the fact that a Master Plan was even drawn up. First, the presentation of a coordinated service position indicates a degree of cooperation has been achieved that will be beneficial during the latter implementation stages. Second, the collective effort to identify potential problems that is inherent in the formulation of a Master Plan, gives everyone involved an early start on the important task of problem resolution.

This suggestion of early FMS planning raises the second issue of manpower. A concern voiced by the F-16 SPO and seconded by many others was the difficulty the SPO had in getting FMS manpower assigned, particularly early on when the important work was being done on the Master Plan, P&A requests, etc. Not until FMS funds are appropriated can manpower authorizations even be justified, and then actual

personnel to fill the slots are still lead time away. Further compounding the problem are Congressionally-imposed manpower ceilings for DCD personnel that include people who work on security assistance programs.

SPO FMS manning needs to be increased. FMS are not an aberration, but rather a consistent theme in our national policy and the Air Force should plan accordingly. The F-16 SPO was more fortunate than most because they could draw on resident expertise from the EPG side of the house to help in the Iranian FMS planning, but that was a unique situation.

It is recognized that only limited manpower exists to deal with all of the Air Force's mission responsibilities and that FMS manpower requirements must compete with these other needs. Some relief has been forthcoming, but these additional manpower spaces have generally been at the expense of other U.S. programs (41).

A long-term solution is to continue pressing for legislative relief from established statutory manpower ceilings for manpower dedicated to FMS. But short-run options must also be explored. One suggestion was to build a specific lead time into every sale which allows for this personnel acquisition delay before work on a sale could actually begin. It is doubtful, however, that the customer country would be satisfied with such an arrangement. Another possibility might be to position sufficient FMS

talent in a "matrix SPO" in the FMS Division at AFSC Headquarters which could fill the void for the various SPOs until permanent personnel were on board. This cadre could help with early Master Plan deliberations as well as initial F&B, F&A studies.

The authors found the manpower area a sufficient limitation in the FMS process to warrant further study to find a solution. But until that solution is found, the SPOs must be prepared to draw personnel from other offices for that critical early planning.

Phases FMS Pre-Planning and Pre-LOA Activity
Problem Factor: Early MAJCOM Involvement

Given the even split among the interviewees on this subject (Figure 2), it was concluded that early MAJCOM involvement had improved significantly since Captain Materma found it to be "one of the most significant problems [24:85]." The concerns expressed in this area centered largely on the perceived failure of the FMS process to adequately consider logistical support early enough. The contributing cause of this perception was the rejection of the Air Force's position on early Iranian aircraft deliveries.

Offsetting this concern, however, was unanimous praise for the Presentation Team approach. Just as the Master Plan served to bring the various FMS participants together early, so too did the Presentation Team perform a

coalescing function. Composed of experts from the various MAJCOMs and Air Staff offices, the structure of the team ensured that the individual MAJCOMs had considered the nature of the sale and their role in supporting it.

Support was also voiced for the need to appoint a senior officer to head these initial teams. This was not seen by those interviewed as merely a symbolic gesture, but a recognition of both the importance and sensitivity involved in these major system sales. General Poe's stature was particularly important during the tough negotiations that followed General Dynamics' misleading pricing information.

Centralization vs decentralization. A final item merits comment. One of the subtle perceptions this thesis research discovered was a resentment on the part of the implementing agencies (AFSC TAC AFLO) towards the so-called policymakers (Air Staff, DSAI, State Department) who, it was felt, centralized too much of the decision-making authority at the "macro" level without also assuming the responsibility inherent in that authority. Thus if something went wrong, it was the implementors with the "hands-on" responsibility who would be at fault and not the anonymous decision-makers.

Consequently, several of those interviewed spoke very adamantly about the need for a Terms of Reference for

the Presentation Team. No one perceived a Terms of Reference as all-inclusive guidelines, but they did see such a document as a means for requiring the policymakers to outline a formal position on the sale. A formal Terms of Reference, it was argued, would fix some of that responsibility at the level where such decisions were actually being made.

While confirmation or disconfirmation of such a perception is clearly beyond this thesis, it is raised here because it was so often alluded to during the interviews. Even were it not true, the fact that DOD does not make FMS policy would seem to mandate some kind of document from the State Department outlining program guidance for any prospective Presentation Team.

Phase: Offer Development

Problem factor: Coordination Subsequent to Initial Planning

In his 1976 thesis, Captain Materna described the status of this problem factor as follows:

. . . Following the initial planning of a sale, coordination between and within commands appears to be a relatively important problem. Due to the complexity of major weapon system package sales, it is essential that the respective FMS responsibilities be clearly identified during the initial planning of a sale, and properly performed and thoroughly coordinated during the preparation of the Offer and Acceptance [24:445-446].

For PEACE ZEBRA, this factor did not manifest itself as a problem (Figure 3) due largely to the successful

utilization of the Weapon System Planning Team concept. Established subsequent to General Poe's Presentation Team visit in September 1976, the WSPT was charged with arriving at agreed-upon planning factors with the Iranian Air Force. General Rutter's team had representatives from all the major PEACE ZEBRA participants (Air Staff, AFSC, AFLC, TAC) including the contractor (General Dynamics). Thus, just as with General Poe's Presentation Team, the structure of the group fostered the proper cross-fertilization. For example, TAC was able to stay on top of the different training schemes because its representative to the WSPT was involved first-hand in the negotiations. AFLC was able to better clarify the supportability issue for the same reason.

The centralization versus decentralization issue was broached in the context of the WSPT. Again, without passing judgement on the veracity of the perception, it is argued, as before, that a Terms of Reference should accompany each WSPT visit.

Finally, the MAAG appeared to have played a very constructive role in PEACE ZEBRA, particularly during the Offer Development phase. As the on-scene representatives during the negotiations, the MAAG answered the numerous follow-on questions which arose after each team visit. Moreover, by anticipating problems, the MAAG was able to better prepare the visiting teams for what issues might be

raised, as was the case with the General Dynamics' pricing letter.

Yet the trend, begun with the Arms Export Control Act of 1976, is away from the MAAGs and toward a much smaller Office of Defense Cooperation (ODC). It is doubtful an ODC could carry the weight of a major arms sale and the demise of the MAAGs must be viewed with a certain amount of concern in the context of major system foreign military sales.

Phases: Offer Development and Offer and Acceptance
Problem Factor: Price and Availability Data

Cited by seven of the nine interviewees as a problem factor (Figure 2), the subject of P&A data was one of the most complex and confusing aspects of the PEACE ZEBRA sale. This correlates with Materna's findings, although he found the lead time issue to be the intractable one while this was not the case in the Iranian sale (24:145). During PEACE ZEBRA, the recommended thirty days lead time seemed to prevail and hence caused no significant problems according to those interviewed. Nonetheless, two other facets of the P&A process--pricing and data availability and reliability--were major concerns.

Pricing. The most dominant characteristic of the PEACE ZEBRA negotiations was difficulty in pricing. From the General Dynamics' letter in August 1976 through the

rejection by Iran of the final WSPT presentation of the LOAs in March 1977, the planning for Iran's 160 F-16s was mired down in conflicting and often politically-motivated pricing proposals. In defense of the participants, some of the confusion was directly attributable to the tremendous built-in complexity of the F-16 program. For example, the U.S. program was priced in 1975 dollars. This was also true for the EFG countries, but with the added twist of a \$6.091 million not-to-exceed price. Meanwhile, General Dynamics was quoting 1975 dollars, at target costs, while the DOD couched its prices in then-year dollars with estimates of ceiling costs.

Overlaying this entire picture, according to those involved in the negotiations, was the Shah's insistence that he not pay anymore than the EFG countries. He was particularly concerned that it not appear to others that he was being "gouged" by the Americans. But this perception was difficult to avoid given the various and conflicting means of pricing. So the Shah constantly sought new pricing profiles to reflect the lowest per unit cost for his public relations purposes. This was the primary reason Iran rejected the proposed LOAs in March which led to a downward revision in the support package to 12 months (originally was 26 months), thereby lowering the all-important per unit cost (37).

Iran was not the only party guilty of political motivations. Both the U.S. and the EPG had priced in 1975 year dollars to keep the figures as low as possible so as not to alarm their respective Congresses and Parliaments. The not-to-exceed price was an additional ploy to help ease the F-16 program through the more financially strapped European countries. The contractor's motivation for 1975 year dollars and target prices, according to several interviewees, was a salesman's approach to make the program as attractive as possible to potential buyers. Finally, the DOD's philosophy was to deal in then-year, ceiling prices to give the Iranians a better idea of what they would actually pay when the aircraft were delivered in 1984.

Against this background of competing motivations, a consistent policy seems necessary. One school of thought recommended that policy be established on a system-by-system, or country-by-country basis. This would allow flexibility for the many differences in arms merchandise and customer country domestic realities. However, as was experienced in PEACE ZEBRA, it is exactly these different country arrangements, and the inevitable comparisons made, that compounded the confusion.

The most plausible solution appears to be a standard policy for all customers with prices stated in current year dollars. The pricing figures would be provided in a

package format, including separate statements for the fly-away aircraft, as well as "probable" escalation rates and supportability costs. Phrased in current year dollars, the P&A data would be more understandable during the negotiations and, critically, would be auditable. On the debit side, such an arrangement could foster that (mis) perception of price gouging when payment became due at a cost well above the stated LOA prices because of escalation, etc. Pricing does not lend itself to facile solutions and, as with the FMS manning issue, warrants further study.

Availability/reliability. Accompanying the question of pricing particulars are the twin problems of availability and reliability of P&A data, particularly on new systems. Procurement, production, and support costs on existing systems can usually be determined from historical records, although the actual availability of the items may be a problem. But at least the data exist. With the newer systems, the production and support costs for many of the items are not known and hence must be estimated. And as has been noted elsewhere in this thesis, during the early stages the configuration is still unstable and P&A data may be provided for equipment that will never even appear on the operational system.

There is no way around this when the decision has been made outside DOD to sell a system like the F-16 early

in its operational life. Yet the risk and uncertainty inherent in such a sale must be continually reinforced to the prospective buyer. That appears to have been done well during the PEACE ZEBRA negotiations, but it is a point future teams must bear in mind.

Intertwined with both the pricing and availability issues is the basic question of data reliability. It was noted in the discussion on P&A availability that it is often questionable whether or not the data even exist, yet figures are somehow always derived. Thus the question becomes how best to do this very difficult and subjective task.

During the PEACE ZEBRA negotiations, the P&A gathering effort was orchestrated by the Directorate of International Programs at the Air Staff and involved AFLC (primarily Ogden ALC and the AFALD), AFSC (i.e., the F-16 SPO), TAC, and General Dynamics. Through a series of meetings held at either the Pentagon, the SPO, or the ALC--chaired by Air Staff representatives--the data were sifted and consolidated and finally submitted to the Directorate of International Programs for inclusion in the proposed Letter of Offer. Not everyone appears to have been satisfied with that arrangement, however, and positions once again hardened around the centralization versus decentralization issue. Specifically, the SPO and AFLC

representatives argued for the lead command approach where the independent P&A efforts of the participating commands would be focused at a single command. Under this arrangement, the field coordination necessary to prepare the Letter of Offer would be accomplished at MAJCOM level where the data were actually collected and prepared. This, they argued, was consistent with the principle of placing authority where the ultimate implementing responsibility lay. It was alleged, for instance, that data submitted from the SPO to the Directorate of International Programs were revised before they went into the Letter of Offer without consulting back with the SPO on the changes.

The Air Staff held a different viewpoint. Their chief objection was that the MAJCOMs lacked the proper "macro" perspective necessary for this task. Furthermore, they feared that disagreements between the lead and participating commands would cause coordination problems and other inefficiencies. As to the sanctity of the numbers, Air Staff representatives countered that changes were mainly to fit the LOA format and any revisions were always upward.

Whether for philosophical, jurisdictional, or Machiavellean reasons, these differing systems' perspectives of the various organizational elements are troubling. The authors suggest a compromise position. There is considerable merit in the observation that only the Air Staff

has the appropriate "macro" perspective for an arms sale. Colocated in Washington D.C. with the major FMS policymaking organizations, the Air Staff is more attuned to the political realities of a particular sale. Yet, this "macro" perspective on the total arms sale does not necessarily correlate to the more specific problem of P&A data. In fact, it is the agencies directly responsible for the data--at the MAJCOM level and below--that have the needed "micro" perspective for the judgements involved in balancing pricing, availability, and reliability tradeoffs. By decentralizing the process to this level, it is anticipated that the preparation of P&A data would improve.¹

Finally, even if the lead command approach is instituted, more attention needs to be given toward assuring better communications among the principals. The allegation of revising P&A inputs is a case in point. Despite denials by several Air Staff representatives, it was learned that some figures were changed without coordination with the originators. That they were revised is not particularly troublesome since LOA format requirements sometimes necessitated differing aggregations or separations of the

¹Others apparently share this feeling. On 29 November 1978 a Program Management Directive (PMD) was issued calling for a one-year test of the lead command concept (38).

submitted figures. Even "upward" revisions might be expected given the tremendous uncertainty of the program. But doing so without coordination or explanation to the originators seems inconsistent with the need for teamwork and, in hindsight, probably contributed to the opinions surrounding the centralization/decentralization issue.

ADDITIONAL PROBLEM FACTORS

As was noted in Chapter 1, initial research of the PEACE ZEBRA story led to the inclusion of contractor involvement, concurrency, and political constraints as three problem factors requiring additional study. As these factors are typically prevalent throughout the FMS process, they will be examined without regard to the FMS phases and the reader is urged to remember that they can impact each phase in some fashion.

Problem Factor: Contractor Involvement

It has been noted several times that the DOD is not in the FMS business as an advocate, but as an implementor. Indeed, DOD policy states that

To the extent practicable, the Department of Defense will assist U.S. industry in making sales directly to foreign governments. Relationships with industry will be forthright, factual, and will avoid all connotation of favoritism [52:B2].

But the probabilities of industry-to-foreign government sales have decreased over the years for two reasons. First,

the Arms Export Control Act of 1976 required that sales of articles and services totaling \$25 million or more, or defense equipment of \$7 million or more, be submitted to Congress for approval (48). These dollar ceilings effectively removed most major weapon system sales from industry's grasp.

The second reason involves an important distinction between DOD sponsored sales and industry sales--support. When the DOD manages a sale, it delivers a fully supportable system whereas the contractor is primarily concerned with the airframe alone. There is a parallel situation with pricing. Prices quoted by the U.S. government in an LOA cover a complete weapon system package including support. Contractors, on the other hand, conservatively estimate their prices to promote sales and may ignore spares, support equipment, training, etc. Purchasing governments, confronted with an oftentimes stark price discrepancy between the two quoted baselines, grow skeptical of the integrity and good intentions of the USG.

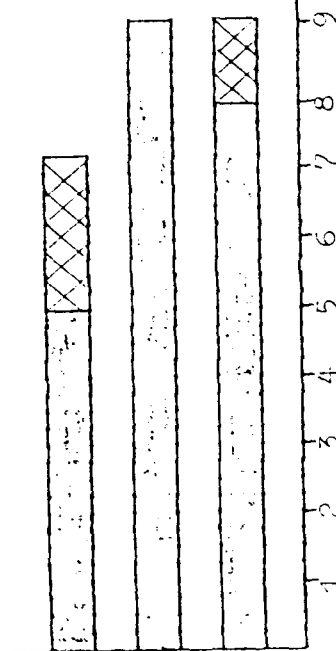
This is, of course, exactly what happened in PEACE ZEBRA and had Iran not been alert to this from previous incidents with contractors, the General Dynamics pricing letter might well have scuttled the entire sale. It was this one glaring incident that earned contractor involvement a strong identification by our interviewees as a problem factor (Figure 3).


1. Contractor Involvement

2. Concurrency

3. Political Constraints

Potential
Problem Factors



 Definitely a Problem


 Somewhat a Problem

Figure 3

Problem Identification Interview Results: Additional Factors

A question of motivations. That the ill-timed General Dynamics' letter was a problem is indisputable. General Poe's Presentation Team encountered tremendous initial hostility and suspicion because of the order of magnitude of difference between the DOD's price estimate (\$3.8 billion for 160 aircraft) and General Dynamics' bid (\$2.1 billion for 300 aircraft). The team's trip report is replete with references to this cold reception (37).

This incident also sparked a strong admonishment from the Vice Commander of AFSC to the F-16 SFC:

Recently, U.S. Government briefings pertaining to a potential Foreign Military Sale were severely and adversely impacted by the country having received directly from the contractor a proposal containing significantly different and incomplete cost data from that contained in the U.S. Government briefing. Such actions create an extremely difficult atmosphere. . . . Request you inform potential FMS contractors of the importance we place on their acting responsibly in this critical area [29].

But what is more important is why the incident occurred. What were the contractor's motivations for such a letter? Here the opinions divided into two camps.

The more benign outlook attributed the letter to contractor inexperience and enthusiasm. General Dynamics was a relative newcomer to the FMS market² and in its rush to

²Only previous FMS experience was with Australia and the F-4E, a program not without its share of problems.

capture the sale made an error in judgement. Had the company been more experienced, like Northrop with its enormous F-5 program, this would never have happened.

The other opinion was less charitable, suggesting that the contractor knew exactly what he was doing and did so because of a fear the sale might not succeed if the "real" pricetag were known. This group also speculated that General Dynamics was worried the U.S. was too "European-conscious" on the F-16 and might low-key the Iranian opportunity if it was felt the sale to Iran would impact the F-16 or U.S. programs.

Unless it is determined that it is in the U.S.'s best interests to make all major weapon system sales official DOD FMS, there is no effective way to control commercial price information. One suggestion made during the research involved making any official communication on pricing information between the contractor and a prospective buyer a contractually binding document. While this would almost certainly inject more realism into the contractor's numbers, it is doubtful such a plan could be legally enforced.

Instead, it seems the better approach would be for the contractor to work more closely with the DOD so that any adversary relationship might be minimized. In short, the objective cannot realistically be less contractor

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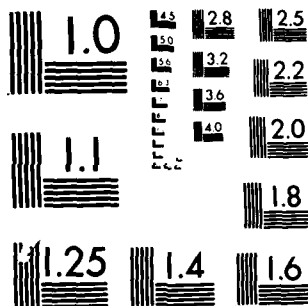
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participation, but more responsible involvement. Once contractors appreciate the importance of realistic and comprehensive estimates as well as the counterproductiveness of premature prices and availabilities, then they can fulfill their necessary role in FMS negotiations.³

Problem Factor: Weapon System Concurrency

Acknowledged by every one of our interviewees as a problem factor (Figure 3), the concurrency issue permeated this entire sale. From the very outset, the Air Force position reflected a concern that the rapid initial introduction of the F-16 at eight bases in six countries in 24 months carried with it high levels of risk and uncertainty. The concurrency problem was especially acute in the logistics area since the program was to be carried out with no buffer stock, no support base and precious little operational experience. The comparison drawn in Chapter 1 between the F-4 and F-16 demonstrated the point vividly.

The implications of concurrency were constantly put before the Iranians by the MAAG and every visiting team. Spares, support equipment, and training were all highlighted as especially sensitive to the early nature of the program.

³It should be pointed out that all interviewees had high praise for the constructive role of the contractor after the lessons learned from the General Dynamics' letter.

Ironically, it appears it was members in the U.S. community who did not fully appreciate the difficulties. The Master Plan was an example. The Air Force's conservative stance on early aircraft deliveries was based on a 42-month leadtime for spares as well as an intuitive concern for the concurrency of the F-16 program. And while the Plan may have been overturned for essentially political reasons, an interesting consensus among the people interviewed was discovered: no one outside the logistics community believed the 42-month figure. They all felt it was unduly pessimistic. Yet the AFLC representatives interviewed acknowledged that even with the management efforts undertaken, the 42-month figure would have proven too short and the USG could have been embarrassed by the shortfall.

In President Carter's 19 May 1977 statement on Conventional Arms Transfer Policy, he stated that " . . . any commitment for sale or coproduction of [advanced weapon systems] is prohibited until they are operationally deployed with U.S. forces . . . [7]." Although the President was trying to remove the incentive to promote foreign sales in order to lower DOD unit costs, his policy is also applicable to the concurrency problem. System maturity needs to be attained if we are to reduce the uncertainty inherent in FMS negotiations. Only then will the data record be sufficiently comprehensive to allow realistic P&A computations and support planning.

Still, the political realities of FMS which often override planning guidance cannot be ignored. For example, sales of advanced new systems to Saudi Arabia would violate this need for system maturity, yet few would argue the wisdom of such a sale, especially after Iran's recent upheavals. So while counseling against the sale of newly-developed weapon systems, the DOD must recognize the high probability that such sales will still occur and put special emphasis in the initial planning stages of a weapon system on the requirement for better planning and pricing techniques for FMS.

Problem Factor: Political Constraints

That politics are inherent in an FMS was strongly reenforced by PEACE ZEBRA and by those interviewed (Figure 3). Literally every major aspect of this sale was, in some part, driven by a political factor. At the macro level, the U.S. willingness to sell F-16s to Iran was a political decision postulated on the U.S.'s strategic security interests in the Persian Gulf as well as the importance of Iranian oil supplies and given further impetus by President Nixon's 1972 decision to sell Iran virtually any conventional weapon it wanted (23:28).

These political mandates also drove more mundane problems. The Air Force's request for later aircraft

deliveries fell prey to the politics of the case. Similarly, the Iranians exerted tremendous leverage throughout the negotiations--changing groundrules, demanding different pricing schemes--because of their politically strong bargaining position.

The existence of the political factor is not startling; it has been consistently pointed out that the DOD only responds to the policy outlined by the leadership in Congress, State Department, and the White House. But the performance of the DOD in dealing with this factor was instructive. Rather than submitting quietly to the pressures for early aircraft deliveries, the Air Force defended its concerns in a professional and forthright manner. That is how it should be. The DOD must not shy away from the obligation to provide a factual and comprehensive analysis of each potential arms sale to those who decide the merits of a sale. The FMS decision process requires that input.

SUMMARY

In review, this chapter has used the results of the nine structured interviews as the basis for an examination of the problem factors selected for study by the authors. Figure 4 summarizes the complete results of the interviews on a histogram. As depicted, the PEACE ZEBRA sale contained all of the problem factors selected for study, but

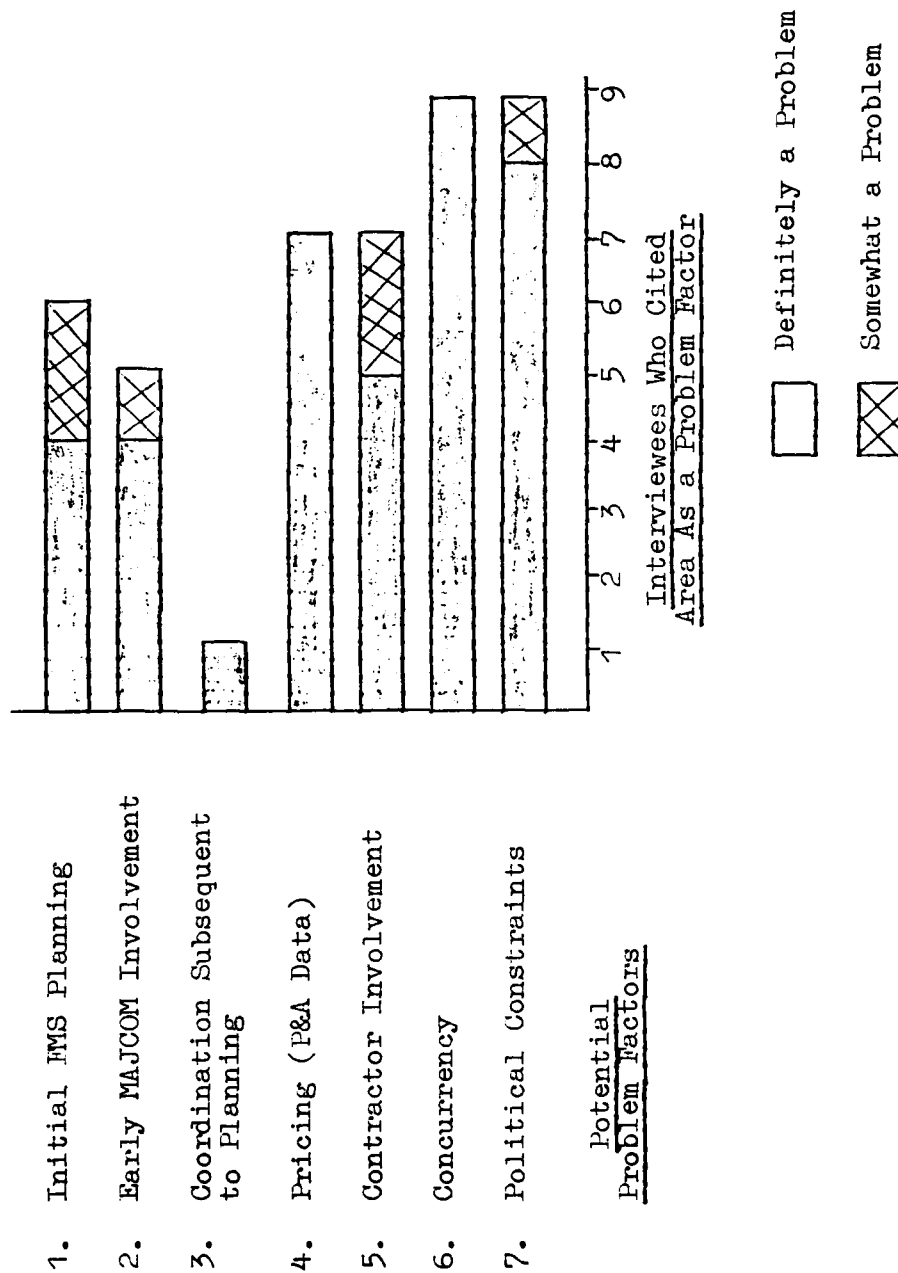


Figure 4

Composite Problem Identification Interview Results

only the areas of initial planning, pricing, contractor involvement, concurrency, and political constraints were cited by a majority of those interviewed as problems.

It is recognized that one must be careful in attempting to generalize from one particular FMS case to another. Each has its own subtleties, especially in the political context, that sets it apart. Still, some key items manifested themselves during the Iranian sale negotiations which should interest future researchers as well as DOD personnel involved in subsequent FMS. Among those items of interest are the Master Plan, FMS manning, pricing arrangements, Terms of Reference, the Presentation Team approach, and the lead command concept. Each of these merits special attention in future FMS planning and it is the conclusions and recommendations on these matters that form the twin foci of Chapter 5.

Chapter 5

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

SUMMARY

This final chapter begins with a summary of the impetus behind the research effort, the methodology employed, and the three variables--FMS phases, management tools, and problem factors--upon which the study was based. Next, the conclusions of the thesis are discussed by an examination of the four research questions. The final section of the chapter outlines the recommendations of the study, provides suggestions for further study, and reinforces the accomplishment of the research objectives.

Impetus for Study

The goal of this thesis was to add to the FMS body of knowledge by studying a specific arms sale, analyzing it through the use of selected problem factors associated with the preparation of the LOA, and finally, extrapolating any recommendations that might prove useful for future arms sale practitioners. The sale was the 1977 arms transfer of 160 F-16s to Iran, code named PEACE ZEBRA. Although since cancelled by the post-Shah revolutionary government,

the validity of this purchase as a topic for study has not diminished since the focus of the research centered on the operating assumptions of the LOA negotiations and not on the merits/demerits of the sale itself.

The combination of three factors made PEACE ZEBRA an attractive area for study. First, it was the next major weapons sale to follow an exploratory thesis done by Materna in 1976 in which four specific problem factors associated with the LOA process were highlighted. The Iranian sale offered an opportunity to validate these factors in a specific case environment. Second, the inclusion of the F-16 added an interesting slant to the study. As America's newest fighter system and already possessed of an ambitious FMS dimension through the EPG consortium agreement, the F-16 offered a tremendous management challenge to the Air Force's acquisition community even before the Iranian developments. With Iran's purchase, the F-16 program posed what one senior official called "unprecedented" challenges (37:1). Finally, the involvement of Iran, with its major geo-political importance and its economic status as the largest buyer of FMS from the USG, injected an element of national security significance into the sale.

Research Methodology

This research was conducted in two phases. The initial stage consisted of a documentary search and

review which laid the essential foundation for the study. This was basically a literature survey of the qualitative information available in the F-16 SPO, AFLC's International Logistics Center, and the Air Staff's Directorate of International Programs. The second stage consisted of a series of interviews with nine key individuals representing the primary U.S. organizational elements involved in the sale (Air Staff, F-16 SPO, and Air Force Logistics Command). Conducted on a non-attribution basis, the opinions gained here were evaluated and synthesized with the documentary evidence initially collected to form this study's analysis, conclusions, and recommendations.

FMS Phases, Management Tools, and Problem Factors

What resulted from this research was a study of the PEACE ZEBRA sale built around three related variables. Chapter 2 establishes the context of the sale by introducing the first variable--the seven phases of an FMS. As depicted in Figure 1, page 27, these phases began with FMS Pre-Planning and ran through sale Closure. This study, because it was concerned only with the negotiations leading up to the signing of the first two LOAs, dealt with the following phases: FMS Pre-Planning, Pre-LOA Activity, Offer Development, Congressional Review, and Offer and Acceptance.

Chapter 2 also discussed the second variable, a series of management tools available to FMS officials.

These included the FMS Master Plan, the team concept, the Letter of Intent, the lead command concept, and the LOA itself. As described in Chapter 3, each of these tools was employed during the PEACE ZEBRA negotiations.

The final variable was a series of problem factors around which the analysis in Chapter 4 was developed. At the outset of the research effort, only the four factors outlined by Materna were chosen for study. These were initial planning, early MAJCOM involvement, coordination subsequent to initial planning, and lead time for price and availability data. But during the initial documentary search and review, three additional factors were discovered and added for study: contractor involvement, program concurrency, and political constraints.

CONCLUSIONS

Research Question #1

What was the historical background of PEACE ZEBRA?

This question was answered by an examination of the dual importance of the F-16 and Iran to this arms transfer. For the F-16, the critical point was the tremendous concurrency of the program, a concern compounded by the relative immaturity of the aircraft design. Not only were Air Force planners concerned with the rapid program buildup that included basing at eight different locations in six

countries in 24 months (37), but they also had to contend with the problems of early configuration instability and the resulting implications for logistical support.

Iran was discussed in terms of the three important aspects of any FMS sale: political, military, and economic. Politically, America's close relationship to Iran was examined, beginning with the initial support supplied the Shah that allowed him to gain power through President Nixon's unilateral assurance that Iran could buy whatever conventional weapons it needed.

Militarily, the policy of supplying arms to Iran was deemed important for several reasons. Iran had a critical strategic location as buffer between the Soviet Union and valuable Mideast oil. Also, by strengthening Iran, it was possible to employ the Nixon Doctrine to maintain a friendly, stabilizing force in the Mideast.

Economically, oil was the all-important factor, but also included in the arguments for sale were the U.S. balance of payments deficit, and a sizeable economic investment by the U.S. private sector.

All three of these characteristics combined to give Iran substantial negotiating leverage, a leverage they were quick to use.

Research Question #2

How did PEACE ZEBRA fit into the FMS process?

As developed in Chapters 2 and 3, it was found that PEACE ZEBRA basically adhered to the classical FMS cycle with a certain amount of overlap between the Pre-LOA Activity and Offer Development phases. FMS Pre-Planning was highlighted by the debate over the Master Plan in which the Air Force's position on mid-1981 aircraft deliveries was overturned for a more accelerated schedule (July 1980). The next phases, Pre-LOA Activity and Offer Development, merged together in the form of the USAF Presentation Team which briefed Iranian officials on the outlines of the proposed sale in September 1976. Of significance here were the difficulties encountered by the team due to some unrealistically low pricing figures submitted to the Iranian government by General Dynamics. Subsequent to the Team's visit, the Congressional Review period expired on 1 October 1976 without Congressional objection and the Offer and Acceptance phase began. During this phase, the USAF sent a Weapon System Planning Team to Iran in December 1976 to help establish the necessary planning factors for the LOAs. In March 1977 the formal in-country presentation of the LOAs was rebuffed due to Iranian concerns with pricing methodology, but some recomputations by AFSC enabled the first

two LOAs to be returned to Iran for approval in May 1977 and signed the following month.

Research Question #3

Were the four major problem factors identified by Materna present during the implementation of the PEACE ZEBRA LOA? Were any others present?

From the structured interviews, it became apparent that PEACE ZEBRA contained all seven of the problem factors selected for study--the four Materna factors as well as the three added by the authors--to some extent, but only the areas of initial planning, pricing, contractor involvement, concurrency, and political constraints were cited by a majority of those interviewed as problems (See Figure 4 page 85). The results of those interviews are discussed below by problem factor.

Initial planning during the preparation of the LOA. Although some initial planning was done for the PEACE ZEBRA sale with the drawing up of an FMS Master Plan, most interviewees agreed that initial planning during the FMS Pre-Planning phase remained a problem for several reasons. First, the Plan was not initiated until after the Iranians had expressed an interest in the sale, a reactive posture uncondusive to proper initial planning. Further, the SPO was not manned for planning third-country FMS sales. Next, the Plan was

based on lead times and slighted the consideration of system maturity. And, as was noted, the 42-month lead time suggested by AFLC to ensure proper logistical support lacked acceptability among the PEACE ZEBRA planners who felt it was unduly pessimistic. Finally, beginning with this area of initial planning and persisting throughout the sale was the sensitive issue of centralization versus decentralization, with the Air Staff and operational units (AFSC, AFLC) differing on the appropriate allocation of decision-making authority.

Early MAJCOM involvement during the planning and coordination of a sale. While the interviewees split evenly on this factor, in the authors' assessment most of the data collected pointed toward this not being a problem in either the FMS Pre-Planning or Pre-LOA Activity phases. Minor coordination problems existed, but the Presentation Team and Weapon System Planning Teams were useful vehicles in involving the pertinent MAJCOMs in the sale.

Coordination during the preparation of the offer and acceptance subsequent to the initial planning of a sale. Both the documentary evidence and the experts interviewed strongly agree that this area was not a problem. Again the team approach employed during the Offer Development phase helped solve most of the coordination problems.

Lead time for the determination of accurate P&A data. There was general agreement that the lead time was not a problem in the PEACE ZEBRA sale. However, the accuracy and reliability/availability of the P&A data during both the Offer Development and Offer and Acceptance phases was seen as a significant problem by seven of the nine interviewed. The reasons cited included confusion over pricing resulting from a maze of target, ceiling, and not to exceed (NTE) prices couched in base year, current year, and then-year dollars. Also, many times system immaturity made estimates very "soft" since the data needed to make accurate estimates were not available. Finally, Air Staff changes to P&A data without coordination with the MAJCOM originators contributed to the emotionalism of the centralization/decentralization issue.

Contractor involvement during the FMS process. By a 7-2 margin, contractor involvement was selected as a problem factor during the Pre-LOA Activity and Offer Development phases. In fact, the documents and most interviewees agreed that the unilateral pricing actions by General Dynamics almost aborted the sale of F-16s to Iran. Opinions varied on the motivations for these actions, however. Some argued that a lack of FMS sales experience by General

Dynamics, including a failure to understand the role of adequate logistical support in FMS government-to-government sales, led to their pricing letter. Others claimed the contractor's actions stemmed directly from a profit-motivated desire to maximize sales however possible. Whatever the reasons, the unfortunate pricing contradictions between the contractor and USG estimates were extremely embarrassing.

Weapon system concurrency. All interviewees confirmed that this was a definite problem factor which permeated each phase of the PEACE ZEBRA sale. Because of the exception to the FMS Master Plan allowing accelerated aircraft deliveries, extraordinary management attention was necessary to keep the entire Iranian program on schedule. As a result of this concurrency, pricing was not as accurate as possible since many items were still in development. The risks of price increases, production delays and parts obsolescence were also greatly increased. Concurrency similarly meant problems with training and support of the weapon system. For example, qualified technicians could not be trained early enough because some repair facilities and equipment were not available until late in the program.

Political constraints. This was another factor which pervaded each phase of PEACE ZEBRA and the interviewees again agreed strongly that this was a problem. The many

groundrule changes initiated by Iran, the change to the Master Plan and the negotiation disadvantage induced by President Nixon's arms transfer promise all impacted heavily on managerial planning.

Research Question #4

Extrapolating from the PEACE ZEBRA experience, can any recommendations be made that will assist future FMS practitioners?

Since this thesis only investigated one arms transfer, any extrapolations to future sales must be approached cautiously. Yet it is the authors' contention that there were some lessons learned from PEACE ZEBRA that can be applied to future sales. That every FMS sale is different with its own unique problems and management responses does not necessarily invalidate observations and recommendations that are tied to the standard FMS phases and management tools. For whatever the uniqueness of a particular sale, the requirements of the U.S. FMS process ensure that the general outline of the FMS phases will be followed. It is with this belief that the recommendations in the next section, drawn from the PEACE ZEBRA experience, are offered to future FMS managers.

RECOMMENDATIONS

As stated at the outset of Chapter 5, this section offers two types of recommendations. The initial set of recommendations are those that grew out of the examination of the seven problem factors as they applied to PEACE ZEBRA. They are presented according to the FMS phase(s) to which they pertain, with the last three applicable to all phases. This discussion will be followed by suggestions for additional research. The chapter concludes with a look at the overall research objectives and an epilogue.

FMS Pre-Planning

To help initial planning of FMS cases, two recommendations are offered. First, the early drawing up of an FMS Master Plan should be made mandatory for any new system having a foreign sale potential. This Master Plan should be based on system maturity as well as support lead times, but also must include enough flexibility to cope with sales early in the weapon system's acquisition cycle. The second suggestion is to improve manning at both the SPOs and the MAJCOMs to better handle the important requirements for initial planning and coordination. It is recognized that final resolution of this issue will probably require Congressional manpower ceiling relief, but short of that,

the involved organizations should be prepared to divert authorizations from existing resources if necessary.

FMS Pre-Planning and Pre-LOA Activity

Although early MAJCOM involvement was not much of a problem in this sale, MAJCOMs should be encouraged to get involved earlier in the planning of FMS, particularly with the Master Plan. Earlier involvement would promote earlier problem identification and, hopefully, problem resolution. Additionally, the Presentation Teams and the WSPT should continue to be employed. Their contributions to the resolution of coordination problems would be hard to overestimate. It is also important that these teams be made up of knowledgeable individuals from the FMS participating agencies, including the contractor. Finally, given the current consolidation of decision-making authority at the Air Staff, these teams need more policy guidance for their in-country briefings and Terms of References should be provided.

Offer Development

Coordination subsequent to initial planning was not a problem due mainly to the successes of the WSPT. Again it is recommended that these teams be used whenever possible.

Offer Development and Offer and Acceptance

The collection and presentation of P&A data were a perplexing issue in PEACE ZEBRA, and are areas ripe for improvement. A consistent, universal policy on pricing is urged to avoid the confusing problems of base year, now year, and then year pricing proposals. A standard policy requiring current year dollars would make this process more comprehensible and auditable for all parties. Data availability will always be a problem when dealing with new systems and it is incumbent on negotiating teams to clearly and honestly reinforce the risk and uncertainty inherent in any P&A figures provided. The various PEACE ZEBRA teams were particularly effective here. Finally, given the problems with pricing and data availability, steps must be taken to maximize data reliability. The lead command concept is recommended as a vehicle for making these improvements. By decentralizing the data gathering process to the MAJCOM level, the agencies with the ultimate program responsibility and the better familiarity with the data will be the ones making the necessary pricing, availability, and reliability tradeoffs.

Recommendations Involving All Phases

To alleviate future problems with the contractor, there must be a closer cooperation established with him

during the entire FMS cycle to emphasize the importance of responsible contractor participation. Further, even though he does not become legally obligated to supply the items and services at the time and price specified in the LOA, the contractor must be urged to adhere to those schedules and prices. Quoting less than realistic prices hoping to make a sale, and then charging the customer later for the cost overruns will only be counter-productive in the long run.

The concurrency problem is a complex one. While President Carter's 19 May 1977 policy statement recommended selling only mature weapon systems, the recent negotiations with Israel on the sale of F-16s indicates such a policy might not always be practical. Thus, SPOs must be prepared to support sales early in the development of their weapon system by increasing the emphasis on the FMS dimension.

The constraints imposed by political decisions must be understood, even though they can never be removed. Proper planning might defuse many serious management problems. In addition, even though the implementor and not the policy-maker in FMS sales, the USAF can influence decisions with professional and candid inputs to the decision process. By ensuring that the USAF position is presented with full justification, valuable time and resources needed to get the job done may be gained. At a

minimum, such a position will provide a clearer picture to the customer of the risks involved. The experience with the proposed delivery schedule to Iran revealed that although overturned on the recommended mid-81 delivery date, the USAF did succeed in moving back the delivery date from early-79 to mid-80, thus gaining an additional 18 months for implementation.

Recommended Areas for Further Study

Out of both the documentary review and the interview process came two areas that still require additional attention and study.

1. The entire question of FMS manning needs careful review. Many interviewees suggested that FMS manning arrives too late to participate in the all-important initial planning for sales due to long manning lead times. Congressional relief from manpower ceilings has been sought for some time, yet remains elusive (41). Therefore, the study should highlight short-term solutions. An AFSC matrix organization of resident FMS experts might be considered as one potential answer to the problem.

2. An in-depth study is also needed to determine what policies, if any, should be implemented with regard to LOA pricing. This should include such considerations as:
a) type of policy: a standard policy, a policy for each

weapon system, or one for each country; b) type of pricing: target, ceiling, not to exceed; and c) dollars to be used: base year, current year, or then-year. While the authors have recommended a standard policy of current year dollars, it is recognized that a defensible argument can also be made for a country-by-country policy using either base year or then-year dollars in order to satisfy various political pressures. This is a very difficult question, but one that needs prompt resolution.

RESEARCH OBJECTIVES

Having answered the research questions associated with PEACE ZEBRA through an in-depth examination of the phases, management tools, and problem factors involved in the sale, the authors have achieved the research objectives.

The first objective was to contribute an analysis of a major weapon system arms sale to the international logistics body of knowledge. Each chapter of the thesis contributed to that goal's realization. Chapter 1 set the stage by establishing the reasons for the research. Of particular note was the fact that what began as a validation of four previously identified problem factors was soon expanded to include three additional factors developed by the authors. Chapter 2 provided an insight into the various phases of an FMS sale as well as a description of

various FMS management tools available to the practitioner. Chapter 3 described the details of the PEACE ZEBRA sale structured around the FMS phases presented in Chapter 2, thereby offering a synthesis of theory and reality in one chapter. In Chapter 4 the specifics of the PEACE ZEBRA negotiations were analyzed by FMS phase and specific problem factor to provide the reader an insight into the potential problems of an FMS sale. Finally, Chapter 5 has presented a series of recommendations, again laid out by FMS phase, intended to help future sales managers avoid some of the potential problems in FMS negotiations.

The second objective was to examine the actual mechanics of the LOA procedure initially using the four major problem factors outlined by Materna. These four factors, along with three additional factors, were examined in Chapter 4 and while all existed to some degree in the negotiations surrounding the LOA, only the areas of initial planning, pricing, contractor involvement, concurrency, and political constraints were cited by a majority of those interviewed.

The final objective of this study was to document successes and failures of the PEACE ZEBRA LOA methodology for future arms sales. This began in Chapter 4 with an in-depth examination of the customer-contractor-USG interactions during the PEACE ZEBRA negotiations and concluded

in Chapter 5 with a series of recommendations pertinent to future arms sales. These recommendations were presented in chronological order according to the various FMS phases and centered on the proper utilization of several FMS management tools previously discussed.

EPILOGUE

In closing, the reader is reminded that the FMS role of the Air Force is confined to implementation, and as such, its task is not to debate the merits of a case but to effectively manage the sale. From this case study of PEACE ZEBRA, it is clear that continued emphasis is necessary in this area, particularly since our nation's leaders are continuing to use FMS as an important instrument of foreign policy. Whatever the principled intentions of President Carter in reducing arms transfers, the pressures of international affairs do not allow much flexibility. One need only examine the requirements for the recent arms deals with Saudi Arabia, Israel, Egypt, and North Yemen to understand this. Moreover, even if new sales were to cease immediately, the USAF would still have to support previously sold weapon systems for the next 20 years (32). Thus, it is the authors' hope that this research will contribute to more effective management of this valuable foreign policy tool.

APPENDIX A
STANDARDIZED INTERVIEW QUESTIONS

APPENDIX A

1. The possibility of Foreign Military Sales must be considered early in the life of a weapon system, usually in the form of a FMS Master Plan. Were you satisfied with the initial planning process for the F-16?

2. Did all the necessary participants (AFSC, AFLO, SPO, TAC, Air Staff) get involved sufficiently early in the planning and coordination of the sale? In that regard, did the Weapon System Planning Team concept employed in the PEACE ZEBRA negotiations help promote MAJCOM participation?

3. Once the initial LOA planning was complete and General Poe's Weapon System Planning Team trip was over, were there any problems getting coordination among the principals on subsequent questions and decisions?

4. Could you comment on the availability of information and time allotted for the preparation of accurate price and availability data? Are you satisfied with the "lead command" concept whereby the preparation and integration of P&A data into a package is accomplished at MAJCOM level?

5. The role of the contractor in a foreign military sale is always a sensitive issue and PEACE ZEBRA appears to have been no exception. How would you describe General Dynamics' involvement during these negotiations? Do you have any recommendations for improving that interface?

6. Several authors have alluded to a 1971 meeting between President Nixon and the Shah at which the Shah was given the President's personal assurance he could have virtually any military or intelligence support he wanted. Against this backdrop, was there a "political imperative" to PEACE ZEBRA? In other words, despite some initial Air Force reservations, wasn't it really a question not "if we sell", but rather "under what conditions?"

7. How did we handle the problems posed by the extreme "concurrency" of the F-16 program?

8. What lessons learned would you cite as evolving out of the PEACE ZEBRA program that could assist DOD managers in future sales of this kind?

9. Please indicate which of the following you consider to have been "problem areas" in the PEACE ZEBRA negotiations:

- ☐ initial FMS planning for the F-16.
- ☐ early MAJCOM involvement.
- ☐ leadtime for the determination of accurate P&A data.
- ☐ coordination subsequent to the initial planning of the sale.
- ☐ contractor involvement.
- ☐ political constraints.
- ☐ high degree of program concurrency.
- ☐ additional problems (please specify).

APPENDIX B
LETTER OF INTENT

UNITED STATES DEPARTMENT OF
DEFENSE

LETTER OF INTENT

Purchaser:
Government of Iran
Vice Minister of War
Tehran, Iran

Reference: Government of Iran, WMOW ltr 401-01-51-12,
16 March 1976

The Government of Iran (GOI) acting through its Vice Minister of War (hereinafter referred to as the "Purchaser") hereby declares its firm intent to procure 160 F-16 aircraft, under United States Foreign Military Sales Act (FMS) procedures, from the Government of the United States. The Government of Iran authorizes obligations and expenditures of funds for the following defense articles and defense services prior to the execution of Letters of Offer and Acceptance:

Expansion of tooling and rate capacity to increase production and to meet GOI deliveries of 4 aircraft per month; long lead items of equipment, including spare parts, engines, and organizational and depot level support equipment; and administrative expenses incurred in definitizing, implementing and executing the F-16 program.

1. It is understood that the United States Department of the Air Force plans to present to the Purchaser a Letter of Offer and Acceptance (DD Form 1513) within 120 days after signature of this Letter of Intent. Except to the extent directly inconsistent with the provisions hereof, the terms and conditions set forth on the reverse side of DD Form 1513 will apply to all activities undertaken pursuant to this Letter of Intent, and the estimated costs of such activities will be included in the Letter of Offer and Acceptance. In particular, Conditions B.7, B.8, and C on the reverse side of DD Form 1513 are hereby incorporated by reference and made an integral part of this Letter of Intent. This Letter of Intent shall be superceded upon Purchaser's signature of the Letter of Offer and Acceptance.

2. In anticipation of the Purchaser's signature of the required Letter of Offer and Acceptance, the Purchaser commits his Government to the following:

(a) In order to permit the United States Government to meet procurement objectives and to consolidate GOI requirements with USAF contractors and to cover associated administrative expenses, the United States Government is hereby authorized to incur obligation up to the sum of \$41 million (which includes all estimated termination costs) on an FMS dependable undertaking basis, to be exceeded only in the event of a decision by either a court or board which increases the contractor's entitlement. The United States Government agrees that not more than \$20 million will be collected from the GOI and expended prior to 1 April 1977, without the prior approval of the Vice Minister of War. However, if any amount is expended in excess of \$20 million prior to 1 April 1977 and prior to receipt of approval, it shall be within the \$41 million obligational authority and be reimbursed subsequent to 1 April 1977.

(b) the Purchaser agrees to pay the full amount of such authorized obligations, and to make funds available in such amounts, and at such times, as may be requested by the United States Government for expenditures against such obligations.

(c) It is estimated that the cost of the long lead time items, associated administrative expenses and estimated termination costs will not exceed the amount set forth in the first sentence of paragraph 2(a). However, if at anytime prior to Purchaser's signature of the above-mentioned Letter of Offer and Acceptance, the United States Department of the Air Force has reason to believe that the costs which it expects to incur in the performance of this Letter of Intent will exceed the amount set forth in subparagraph (a) of this paragraph, it shall promptly notify the Purchaser in writing to that effect. The notice shall state the estimated amount of the date by which the additional obligational authority (by a new or modified Letter of Intent) will be required from the Purchaser in order to continue performance under this Letter of Intent. If, after such notification, the additional obligational authority is not granted by the date set forth in the notification, the United States Government is authorized, in its discretion, to terminate any and all activities under this Letter of Intent at Purchaser's expense, in accordance with subparagraph (b) above, in an amount not to exceed the amount set forth in subparagraph (a) of this paragraph.

3. This Letter of Intent does not prejudice the Purchaser's decision on the acceptance of the Letter of Offer. Moreover, the Purchaser may cancel all or any part

of this Letter of Intent at anytime by notifying the United States Government. Upon receipt of such notification the United States Government is authorized to terminate any and all activities initiated hereunder, at Purchaser's expense, in accordance with paragraph 2(b), in an amount not to exceed the amount set forth in the first sentence of paragraph 2(a).

4. In the event of such cancellation or termination, the United States Government will use its best efforts to minimize any termination costs.

5. The United States Government agrees that the two prime contractors, General Dynamics and Pratt & Whitney Aircraft, will not receive the special profit consideration as provided for in paragraph 3-808.6(b) of the ASPR for effort similar to that being purchased under USAF contract.

6. The United States Government agrees that funds will not be obligated for training programs without obtaining the specific prior approval of the Vice Minister of War.

7. Certain items for which procurement may be initiated hereunder are normally the subject of definitization or provisioning conferences, at which specific items and quantities are agreed upon. If it is necessary to place any such items on order prior to any such conference, the United States Department of the Air Force is authorized to do so, using its best judgment, and will furnish a list of the items so ordered at the conference.

24 Oct 1976
(Date)

Accepted this 27 day of
October, 1976

GENERAL H. MOUFANIAN
VICE MINISTER OF WAR

JAMES E. McInerney, Jr.
Major General, USAF

APPENDIX C
PEACE ZEBRA LOA #1

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APPENDIX C

UNITED STATES DEPARTMENT OF DEFENSE OFFER AND ACCEPTANCE				(11) PURCHASER (Name, Address)(Include ZIP Code) Government of Iran Vice Minister of War Tehran, Iran		
(12) PURCHASER'S REFERENCE VMON ltr 401-01-		(13) DATE DESIGNATION PEACE ZERRA #1				
51-12, 15 Mar 76		(AIR)		OFFER		
The Government of the United States hereby offers to sell to the above purchaser the defense article(s) and defense service(s) listed below, subject to the terms contained herein and conditions cited on the reverse.						
(4) THIS OFFER EXPIRES 15 Jun. 77.		Major General James E. McInerney, Jr., Director, DSAA (5) SIGNATURE, TYPE NAME AND TITLE OF US REPRESENTATIVE 26 May 1977 (7) US DEPARTMENT OF the Air Force HQ USAF/LCP WASH DC 20330				
(18) ITEM OR REF. NO.	(19) ITEM DESCRIPTION (Including stock number, if applicable)	(10) QUANTITY	(11) UNIT OF ISSUE	(12) UNIT COST	(13) TOTAL COST	(14) AVAILABILITY AND REMARKS
1.	IP-D-STA a. F-16A/B Aircraft (136 A's/24 B's) b. Program Management Contingency	160		6,153,750	984,600,000 110,200,000	See Explanatory Notes
NOTE: Amounts shown in Columns 12 and 13 and Lines 15 through 20 are 75 base year dollars. Actual obligation will be based on 75 Year (CY) dollars as reflected in Atchs 3 and 4.						
(15) ESTIMATED COST					\$1,094,800,000	
(16) ESTIMATED PACKING, CRATING, AND HANDLING COSTS						
(17) ESTIMATED ADMINISTRATIVE CHARGE					2% 21,596,000	
(18) ESTIMATED CHARGES FOR SUPPLY SUPPORT ARRANGEMENTS						
(19) OTHER ESTIMATED COSTS (Specify)						
(20) ESTIMATED TOTAL COSTS					\$1,116,696,000	
(21) TERMS DEPENDABLE UNDERTAKING. Payments against this order will be requested as needed. Statements of FMS transactions from our billing office at Denver, Colorado will show amounts and dates payments are due.					5 Atch 1. Notes 2. Additional Terms 3. Additional Terms 4. Payment Schedule 5. Agents Fees	
ACCEPTANCE						
(22) I am a duly authorized representative of the Government of IRAN IRAN and upon behalf of				(24) OFFER/RELEASE CODE		
said Government, except this offer under the terms and conditions contained here-				(25) FREIGHT FOR- WARDER CODE:		
in, this (23) 8 day of June 19 77.				(26) MARK FOR CODE:		
(28) TYPED NAME AND TITLE GEN. H. TOUFANIAN VICE MINISTER OF WAR				(27) POINT OF DELIVERY:		
				(29) SIGNATURE		

DD FORM 1513
JAN 77

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PAGE OF PAGES

EXPLANATORY NOTES

AIRCRAFT CASE IR-D-STAD

This case includes costs associated with the production of 136 F-16A single place and 24 F-16B two place aircraft. Included in the aircraft flyaway cost are (a) certain miscellaneous loose equipment items (DD 780 equipment) delivered with each aircraft as listed below, (b) technical orders for the aircraft.

a. The aircraft configuration will be the export baseline configuration as defined for Iran in the Weapon System Planning Team briefing given in Iran December 1976. The aircraft Group "A" configuration will include standard USAF provisions for the PAVE PENNY and AN/ALQ-131 ECM pods, as those systems are configured at the time of first aircraft delivery. Inclusion of the Group "A" provisions for nonreleasable systems in the Iranian F-16 (i.e., PAVE PENNY, and AN/ALQ-131 pods) does not constitute release of the systems themselves nor intent to release at a future date. Release of subsystems/weapons not expressly defined in the export baseline configuration will be reviewed by HQ USAF on a case-by-case basis.

b. Loose equipment items (DD 780 equipment) are divided into two categories:

(1) Items required for parking and storing the aircraft in the normal ground position. Additional quantities may be purchased under this case if required by the Government of Iran.

<u>Item</u>	<u>Quantity/Aircraft</u>
Instrument Probe Cover	1
External Canopy Jettison Initiator	
Safety Pin	1
Thruster Initiator Safety Pin	2
Internal Canopy Jettison Handle	
Safety Pin	1
Seat Initiator Safety Pin	2
Seat Safety Pin	1
Ground Locks (NLG)	2
Ground Locks (NLG)	1
HUD Cover	1
Ground Lock (Tail Hook)	1
Gum Ground Safety Pin	1
Launcher Ground Safety Pin	6
Covers, Downlocks, Safing Devices, Plugs, Streamers, etc.	As Required

(2) External stores items to be provided with each aircraft are:

<u>Item</u>	<u>Quantity/Aircraft</u>
AERO - 3B Launcher (MOD)	4
AERO - 3B Underwing Adapter	2
Wing Weapon Pylon	2
Wing Fuel Pylon	2
Centerline Weapon Pylon	1
Centerline Fuel Pylon	1
Centerline ECM Adapter	1
300 Gallon Fuel Tank	1
370 Gallon Fuel Tank	2
BRU-31A (TER)	2
MAU-12 (RACK)	3
LAU-83 (MAVERICK Launcher)	1

Atch 1

c. Aircraft production schedule is listed below. In-Iran delivery schedule is an estimate since delivery mode has not been determined. A separate Letter of Offer and Acceptance will be structured for the yet to be determined services required.

d. Technical Orders for the aircraft are provided with the aircraft (one copy each) and will be updated through six months after delivery of last F-16 aircraft.

1F-16A-1	Flight Manual
1F-16A-1-CL-1	Flight Crew Checklist
1F-16A-5	Basic Weight Checklist and Loading

Additional technical orders are provided for in case IR-D-STK0.

e. The prices on this Letter of Offer and Acceptance have been computed as target prices at the request of the Government of Iran (GOI). Since the contracts for the GOI F-16 aircraft program have not been consummated, the prices are essentially contractual objectives that the USG will strive to negotiate with the prime vendors. The program management contingency line is, therefore, required in the event that the contractual negotiation objectives or goals are not achieved. Fund contingencies may also be necessary in the event that, under the contracted fixed price incentive arrangement, the contractor exceeds target price during the actual contract performance. Requirements for contingency money may occur any time after program directive implementation.

f. The PEACE ZEBRA aircraft delivery schedule is listed on the following page.

PEACE ZEBRA

[illegible]

IRANIAN F-16
CONFIGURATION

ENGINE	F100-PW-100 (3)
RADAR	F-16 MULTIMODE
TACAN	AN/ARN-118
UHF RADIO	AN/ARC-164
VHF/AM RADIO	AN/ARC-115
IFF	AN/APX-101
RADAR WARNING RECEIVER	AN/ALR-46(V)-1
INS	SKN 2416
CHAFF/FLARE DISPENSER	ALE-40
ILS	AN/ARN-108
INTERFERENCE BLANKER	MX-6770 A/A
GUN	M61A1 20 MM

ADDITIONAL TERMS AND CONDITIONS
(GENERAL)

1. Transportation and or delivery of aircraft is not priced in this Letter of Offer and Acceptance (LOA).
2. Facilities construction (including associated architectural and engineering services) will be the responsibility of the Government of Iran (GOI). They must be constructed according to Imperial Iranian Air Force (IIAF) approved contractor specifications and be completed in time to accommodate aircraft and associated equipment deliveries.
3. This case includes only the aircraft, accompanying loose equipment, and technical publications listed in the Explanatory Notes (Atch 1).
4. Transfer of funds between PFACE ZEBRA cases is authorized to preclude unnecessary administration and/or transfer of funds between USC/GOI.
5. Production installed equipment is priced and will be provided on the basis of using available serviceable assets where economical and responsive to delivery requirements. Both USAF/IIAF aircraft will share proportionately in the use of serviceable assets. Provisioning solely on the basis of production line new and unused equipment would result in considerable price increase and probable production delays. Therefore, the solely new and unused requirement does not apply to this LOA. All efforts will, however, be made to use new and unused assets where practicable/available.

Atch 2

ADDITIONAL TERMS AND CONDITIONS
(FINANCIAL)

1. At the request of the Iranian Government the estimated dollar amounts on this Letter of Offer and Acceptance (LOA) are in FY 75 constant dollars. The estimated total program cost as shown on line 15 of the LOA does not account for any program cost growth due to inflation in the U.S. and Europe. These FY 75 dollars will be converted to then year dollar forecasts for purposes of USG obligation/contractual authority. Payments required will be based on actual USAF costs incurred on behalf of the Iranian Government.

2. At the request of the Iranian Government the indices provided below are the USAF F-16 program indices which incorporate the Office of the Secretary of Defense (OSD) published indices for FY 81 and beyond. The OSD indices reflect an approximate escalation rate of four percent per year and may understate the escalation rate for this program. The USAF F-16 program indices do not incorporate escalation for the 15% of the program coproduction by the European Participating Governments (EPG).

USAF Program Indices

FY	77	1.190
	78	1.288
	79	1.403
	80	1.514
	81	1.582
	82	1.645
	83	1.711

3. The case value for the aircraft case IR-D-STAD is based on the above USAF program indices. For obligation/contractual authority purposes, this case value is:

<u>Case</u>	<u>Then Year (\$ million)</u>
IR-D-STAD	1,655.8

4. The payment schedule in attachment 4 reflects a cumulative then year LOA value based on the USAF F-16 program escalation. Any increased case values due to escalation beyond that depicted by the program rate escalation or increases for EPG coproduction will result in revision of the payment schedule. In addition, the payment schedule will be reviewed annually and revised as necessary to reflect any changes in forecasted payment requirements.

Atch 3

PAYMENT SCHEDULE

160 F-16 Aircraft

PEACE ZEBRA

(DOLLARS IN MILLIONS)

<u>PAYMENT DUE</u>	<u>QUARTERLY PAYMENT</u>	<u>CUMULATIVE</u>
Oct 77	12.7	12.7
Jan 78	17.3	30.0
Apr 78	30.7	60.7
Jul 78	43.3	104.0
Oct 78	54.5	158.5
Jan 79	67.2	225.7
Apr 79	81.3	307.0
Jul 79	95.6	402.6
Oct 79	106.4	509.0
Jan 80	107.8	616.8
Apr 80	108.5	725.3
Jul 80	108.0	833.3
Oct 80	106.5	939.8
Jan 81	103.9	1043.7
Apr 81	100.0	1143.7
Jul 81	95.1	1238.8
Oct 81	89.1	1327.9
Jan 82	82.0	1409.9
Apr 82	73.7	1483.6

Atch 4

<u>PAYMENT DUE</u>	<u>QUARTERLY PAYMENT</u>	<u>CUMULATIVE</u>
Jul 82	64.3	1547.9
Oct 82	53.8	1601.7
Jan 83	42.2	1643.9
Apr 83	29.4	1673.3
Jul 83	15.6	1688.9

NOTE: This payment schedule reflects estimated cash required in the PEACE ZEBRA F-16 aircraft Letter of Offer and Acceptance (LOA). Any payments made to the Air Force Accounting and Finance Center/Security Assistance Accounting Center (AFAFC/SAAC) based on the PEACE ZEBRA Letter of Intent will be applied as credits to subsequent billings. This schedule will be reviewed annually during the life of this LOA. Requests for payment (DD Form 645) will be based on actual USAF costs and contractor requests for progress payments.

SPECIAL COUNTRY REQUESTS WITH RESPECT TO
SALES COMMISSIONS AND FEES

1. All U.S. Government contracts resulting from this Offer and Acceptance shall contain one of the following provisions, unless the sales commission and fee have been identified and payment thereof approved in writing by the Government of Iran before contract award.

a. For firm fixed price contracts or fixed price contracts with economic price adjustment. "The contractor certifies that the contract price (including any subcontracts awarded hereunder) does not include any direct or indirect costs of sales commissions or fees for contractor sales representatives involved in Foreign Military Sales to the Government of Iran.

b. All other types of contracts:

"Notwithstanding any other provision of this contract, any direct or indirect costs of sales commissions or fees for contractor (or subcontractor) sales representatives involved in Foreign Military Sales to the Government of Iran shall be considered as an unallowable item of cost under this contract."

2. The appropriate clause as indicated above will be included in all FMS contracts awarded on behalf of any government qualifying under this provision.

Atch 5

COMBINED PAYMENT SCHEDULE
PEACE ZEBRA
160 F-16 AIRCRAFT and SUPPORT CASES

<u>PAYMENT DUE</u>	<u>(\$ in millions) CUMULATIVE</u>
With Acceptance	2.3
Jul 77	10.7
Oct 77	45.0
Jan 78	77.3
Apr 78	139.0
Jul 78	220.9
Oct 78	306.6
Jan 79	400.3
Apr 79	509.3
Jul 79	631.6
Oct 79	764.0
Jan 80	895.8
Apr 80	1025.3
Jul 80	1151.8
Oct 80	1274.3
Jan 81	1392.2
Apr 81	1503.9
Jul 81	1608.8
Oct 81	1705.9
Jan 82	1794.4
Apr 82	1872.6
Jul 82	1936.8
Oct 82	1992.1
Jan 83	2035.5
Apr 83	2065.5
Jul 83	2081.1

NOTE: This payment schedule reflects estimated cash required for the combined PEACE ZEBRA F-16 support and aircraft Letters of Offer and Acceptance (LOAs). Any payments made to the Air Force Accounting and Finance Center/Security Assistance Accounting Center (AFAFC/SAAC) based on the PEACE ZEBRA Letter of Intent will be applied as credits to subsequent billings. This schedule will be reviewed annually during the life of these LOAs. Requests for payments (DD Form 645) will be based on actual USAF costs and contractor requests for progress payments.

APPENDIX D
PEACE ZEBRA LOA #2

APPENDIX D

UNITED STATES DEPARTMENT OF DEFENSE OFFER AND ACCEPTANCE		(1) PURCHASER (Name, Address (Include ZIP Code))				
(2) PURCHASER'S REFERENCE	(3) CASE DESIGNATION	Government of Iran Vice Minister of War Tehran, Iran				
WVOW ltr 401-01-	PEACE ZEBRA #2					
51-12, 16 Mar 76		OFFER				
The Government of the United States hereby offers to sell to the above purchaser the defense article(s) and defense service(s) listed below, subject to the terms contained herein and conditions cited on the reverse.						
(4) THIS OFFER EXPIRES		(5) SIGNATURE, TYPED NAME AND TITLE OF US REPRESENTATIVE				
15 Jun 77		JAMES E. McINERNEY, Jr. 26 May 1977				
		(7) US DEPARTMENT OF the Air Force 50 USDP/IGF WASH DC 20330				
(6) DATE						
ITEM OR REF. NO. (8)	ITEM DESCRIPTION (Including stock number, if applicable) (9)	QUANTITY (10)	UNIT OF ISSUE (11)	UNIT COST (12)	TOTAL COST (13)	AVAILABILITY AND REMARKS (14)
1.	IR-D-STB0 (A9B)			1,755,000	\$70,200,000	
	a. Spare Engines	40				
	b. Shipping Containers	40				
2.	IR-D-STC1 (A7A)				22,300,000	
	Developmental Support Equipment, Organizational & Intermediate (O&I)					
3.	IR-D-STD3 (A7A)				6,200,000	
	Standard Support Equipment (O&I)					
4.	IR-D-STF7 (A9C)				39,000,000	
	Initial Spares					
	a. Spares					
	b. Provisioning					

Pg 1 of 6

UNITED STATES DEPARTMENT OF DEFENSE OFFER AND ACCEPTANCE		(1) PURCHASER (Name and Address) (Include ZIP Code)				
(2) PURCHASER'S REFERENCE	(3) CASE DESIGNATOR PEACE ZEBRA					
OFFER						
The Government of the United States hereby offers to sell to the above purchaser the defense article(s) and defense service(s) listed below, subject to the terms contained herein and conditions cited on the reverse.						
(4) THIS OFFER EXPIRES		(5) SIGNATURE, TYPED NAME AND TITLE OF US REPRESENTATIVE				
		(7) US DEPARTMENT OF the Air Force				
(6) DATE						
ITEM OR REF. NO. (8)	ITEM DESCRIPTION (including stock number, if applicable) (9)	QUANTITY (10)	UNIT OF ISSUE (11)	UNIT COST (12)	ESTIMATED TOTAL COST (13)	AVAILABILITY AND REMARKS (14)
5.	IR-D-STF0 (MLX) Engineering and Provisioning Services a. Engineering Changes b. Sustaining Engineering c. Provisioning				\$24,700,000	
6.	IR-D-STG0 (J5A) Training Equipment a. Maintenance Training Set (MTS) b. Avionic Intermediate Shop (AIS) c. Peripheral Training Equipment	1 1			13,200,000	

Pg 2 of 6

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UNITED STATES DEPARTMENT OF DEFENSE OFFER AND ACCEPTANCE		(1) PURCHASER (Name and Address) (Include ZIP Code)				
(2) PURCHASER'S REFERENCE		(3) CASE ORIGINATOR PEACE ZEBRA				
OFFER						
The Government of the United States hereby offers to sell to the above purchaser the defense article(s) and defense service(s) listed below, subject to the terms contained herein and conditions cited on the reverse.						
(4) THIS OFFER EXPIRES		(5) SIGNATURE, TYPED NAME AND TITLE OF US REPRESENTATIVE				
		(7) US DEPARTMENT OF <u>the Air Force</u>				
(6) DATE						
ITEM OR REF. NO. (8)	ITEM DESCRIPTION (Including stock number, if applicable) (9)	QUANTITY (10)	UNIT OF ISSUE (11)	ESTIMATED		AVAILABILITY AND REMARKS (14)
				UNIT COST (12)	TOTAL COST (13)	
	d. Cockpit Procedures Trainer	1				
	e. EGRESS Procedures Trainer	1				
7.	IR-D-STH0 (MLX) Weapon System Drawing Set and Update Services				\$ 50,000	
8.	IR-D-STJ0 (JSV) Technical Publications/ Data				33,000,000	
	a. Common Technical Orders					
	b. Peculiar Technical Orders					
	c. Contractor Prepared Data					

Pg 3 of 6

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UNITED STATES DEPARTMENT OF DEFENSE OFFER AND ACCEPTANCE		(1) PURCHASER (Name, Address)(Include ZIP Code)				
(2) PURCHASER'S REFERENCE		(3) CASE DESIGNATION				
		PEACE ZEBRA				
OFFER						
The Government of the United States hereby offers to sell to the above purchaser the defense article(s) and defense service(s) listed below, subject to the terms contained herein and conditions cited on the reverse.						
(4) THIS OFFER EXPIRES		(5) SIGNATURE, TYPED NAME AND TITLE OF US REPRESENTATIVE				
		(7) US DEPARTMENT OF the Air Force				
		(6) DATE				
ITEM OR REF. NO. (8)	ITEM DESCRIPTION (Including stock number, if applicable) (9)	QUANTITY (10)	UNIT OF ISSUE (11)	ESTIMATED		AVAILABILITY AND REMARKS (14)
				UNIT COST (12)	TOTAL COST (13)	
9.	IR-D-STK0 (MLX) AFLC Management/Travel				\$ 1,000,000	
10.	IR-D-STL0 (MLX) AFSC Management/Travel				1,100,000	
11.	IR-D-STM0 (MLX) Weapon System Logistics Advisors	2	2 yrs		400,000	
12.	IR-D-STN0 (MLX) Resident Integrated Logistics Support Activity (RILSA)				175,000	
13.	IR-D-STP0 (MLX) Contractor Integration Services	30	mos		5,500,000	

Pg 4 of 5

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UNITED STATES DEPARTMENT OF DEFENSE OFFER AND ACCEPTANCE				(1) PURCHASER (Name, Address)(Include ZIP Code)		
(2) PURCHASER'S REFERENCE		(3) CASE DESIGNATION PEACE ZEBRA				
OFFER						
The Government of the United States hereby offers to sell to the above purchaser the defense article(s) and defense service(s) listed below, subject to the terms contained herein and conditions cited on the reverse.						
(4) THIS OFFER EXPIRES _____				(5) SIGNATURE, TYPED NAME AND TITLE OF US REPRESENTATIVE _____		
				(7) US DEPARTMENT OF <u>the Air Force</u>		
(6) DATE _____						
ITEM OR REF. NO. (8)	ITEM DESCRIPTION (Including stock number, if applicable) (9)	QUANTITY (10)	UNIT OF ISSUE (11)	UNIT COST (12)	ESTIMATED TOTAL COST (13)	AVAILABILITY AND REMARKS (14)
14.	IR-D-STR0 (MLX) Contractor Engineering Technical Services (CEIS)	2	yrs		\$ 5,300,000	
15.	IR-D-STSO (MLX) Quality Assurance				6,900,000	
16.	IR-D-STT0 (MLX) Component Improvement Program (CIP)				3,300,000	
17.	IR-D-STU0 (MLX) Aircraft Structural Integrity Program (ASIP)				1,300,000	
18.	IR-D-STV0 (R00) Maintenance Data Collection System				18,000	

Pg 5 of 6

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UNITED STATES DEPARTMENT OF DEFENSE OFFER AND ACCEPTANCE				(1) PURCHASER (Name, Address) (Include ZIP Code)		
(2) PURCHASER'S REFERENCE		(3) CASE DESIGNATOR		OFFER		
		PEACE ZFERA				
The Government of the United States hereby offers to sell to the above purchaser the defense article(s) and defense service(s) listed below, subject to the terms contained herein and conditions cited on the reverse.						
(4) THIS OFFER EXPIRES				(5) SIGNATURE, TYPED NAME AND TITLE OF US REPRESENTATIVE		
				the Air Force		
				(7) US DEPARTMENT OF		
(6) DATE						
ITEM OR REF. NO. (8)	ITEM DESCRIPTION (Including stock number, if applicable) (9)	QUANTITY (10)	UNIT OF ISSUE (11)	ESTIMATED		AVAILABILITY AND REMARKS (14)
				UNIT COST (12)	TOTAL COST (13)	
19.	IR-D-STV (R00) Aircraft Delivery				3 40,000	
20.	IR-D-STX (A9X) Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD)				24,000	
21.	IR-D-STY (MLX) Program Management Contingency				33,000,000	
NOTE: Amounts shown in Columns 12 and 13 and Lines 15 through 20 are base year dollars. Actual obligation will be based on Then Year (TY) dollars as reflected in Atch 5 & 6.						
(15) ESTIMATED COST					\$ 266,707,000	
(16) ESTIMATED PACKING, CRATING, AND HANDLING COSTS 3.5% of approximately 30% of items 3, 4, and 6					613,000	
(17) ESTIMATED ADMINISTRATIVE CHARGE 2.0%					5,334,000	
(18) ESTIMATED CHARGES FOR SUPPLY SUPPORT ARRANGEMENTS						
(19) OTHER ESTIMATED Aggregation 5% of items 1-4 (3% for CONUS transportation, 3% USAF storage)					9,262,000	
(20) ESTIMATED TOTAL COSTS					\$ 280,916,000	
(21) TERMS						
Cash with Acceptance 32.3 M.DEPENDABLE UNDERTAKING				1. Notes		
Payments against this order will be requested as needed. Statements of PMS transactions from our billing office at Denver, Colorado will show amounts and dates payments are due.				2. Additional Terms		
				3. Additional Terms		
				4. Additional Terms		
				5. Additional Terms		
				6. Payment Schedule		
ACCEPTANCE						
(22) I am a duly authorized representative of the Government of IRAN and upon behalf of				(24) OFFER/RELEASE CODE		
said Government, accept this offer under the terms and conditions contained here:				(25) FREIGHT FOR- HAZARDCODE:		
In, the (23) 3 day of June 19 77				(26) MARK FOR CODE:		
(28) TYPED NAME AND TITLE GEN. H. TOUPANIAN VICE MINISTER OF WAR				(29) SIGNATURE		

DD FORM 1513

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PAGE OF PAGES

EXPLANATORY NOTES

1. SPARE ENGINES, CASE IR-D-ST30

This case provides for 40 spare engines and 40 engine shipping containers. One of the engines from this case will be used to supply the spare engine requirement for the Maintenance Training Set (MTS). Engine price does not include cost of transportation of the 40 spare engines to Iran.

2. DEVELOPMENTAL SUPPORT EQUIPMENT (DSE), CASE IR-D-STC1

a. This case provides two sets of organizational level DSE and one set of intermediate DSE, including one Avionics Intermediate Shop (AIS). AIS test level is yet to be defined. Cost of Organizational and Intermediate (O&I) DSE for the depot requirement is not included in this case.

b. This case does not identify total initial program requirements. Support equipment estimates are based upon requirements for the first year's delivery of 48 aircraft at the first activated operating base. DSE requirements for remaining locations, including forward operating bases, will be identified and priced in a subsequent LOA.

3. STANDARD SUPPORT EQUIPMENT (O&I), CASE IR-D-STD0

a. This case provides for the procurement of common O&I level Support Equipment (SE) for which AFLC is the cognizant procuring agency. Depot level SSE will be procured under case IR-D-SWC0. The estimates herein are based upon USAF type planning factors applied to the first base activation. Remaining requirements for additional base activations, including forward operating bases, will be identified and priced in a subsequent LOA. This estimate could be reduced through utilization of assets available in-country.

b. SSE estimates are based upon a review of requirements of existing individual base shop equipment in support of aircraft with similar systems.

4. INITIAL SPARES -- (EXCLUDING DEPOT REQUIREMENTS), CASE IR-D-STE0

a. SPARES

(1) This case does not identify total initial program requirements but provides for initial spares (excluding insurance type items and depot level requirements) necessary to support the IIAF requirements (aircraft, engine, avionics, SE, and training equipment) for a period of approximately 12 months at the first activated operating base equipped with the first year's delivery of 48 aircraft. Additional initial spares required for the support of all 160 aircraft for 26 months will be identified and priced in a subsequent LOA.

(2) The USAF will identify, aggregate, and ship via dedicated Iranian airlift, selected items and quantities for base level usage during the first six months of base operation. The balance of items and quantities will be aggregated for shipment directly to the IIAF designated depot or base. Phased delivery may also be made to preclude depot saturation.

(3) A special kit of bulk items and consumables will be procured for the first activated operational base. The items in these kits will satisfy O&I bench stocks for approximately six months and thereafter will be requisitioned or locally purchased by the IIAF.

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b. CONTRACTOR PROVISIONING EFFORT, SPARE/REPAIR PARTS

(1) This portion of case IR-D-STC provides for the procurement of contractor spare/repair parts provisioning processes and products.

(2) Spare/repair parts provisioning data and services costs are incurred, as necessary, to support the source coding and selection of items to be procured and stocked as spares inventory, as defined by the spares contract, and the Provisioning Requirement Statement. These charges are separately priced and are not included as part of the end item price.

(3) Provisioning data, compatible with IIAF cataloging system, should be provided to the IIAF in time to permit research against existing stocks and to allow for IIAF approval.

5. ENGINEERING AND PROVISIONING SERVICES, CASE IR-D-STC

a. ENGINEERING CHANGES. The engineering changes line is for the initial funding of common IIAF/USAF changes. A Configuration Management Plan for the IIAF F-16 will be submitted for Iranian approval after LOA implementation. It is desired, as in other FMS programs, that the IIAF will authorize the USAF to act as approval/disapproval authority for all engineering changes which apply to both USAF and IIAF aircraft.

b. SUSTAINING ENGINEERING. The sustaining engineering line provides for engineering efforts in support of Iranian requirements either prorated or totally Iranian funded. Costs will depend upon scope and effectivity of the effort.

c. PROVISIONING. This line provides the funding for the initial contractor provisioning preparation efforts associated with all aspects of the PEACE ZEBRA Program. These efforts are separate from the spares provisioning described in paragraph 4b above.

d. Funding for the above line items a, b, and c cover initial system acquisition requirements only. Additional funding that will be required for continuing efforts has not been computed in this LOA and will be identified and priced in a subsequent LOA. The additional efforts required for total program support include, but are not necessarily limited to: engineering changes not common with USAF and continuing contractor provisioning documentation updates as a result of the changing configuration and support equipment lists.

6. TRAINING EQUIPMENT, CASE IR-D-STC

a. Equipment will be aggregated for airlift arranged by IIAF.

b. MTS does not include an engine (to be supplied from spare engine case).

c. One additional set of crew chief (course no. 431X1C) and weapons (course no. 452X0) training equipment should be provided for training in Iran. All training equipment will be certified and checked out by the contractor in Iran. MTS delivery schedule to General Dynamics is October 1979. Price of MTS preparation for shipment to Iran is included in this case.

d. One AIS will be provided for training (test level to be defined).

e. Peripheral Maintenance Training equipment.

Peripheral Aircrew Training Equipment consists of:

5 each	35mm Slide projectors
5 each	Vu-Graph projectors
5 each	Projection screens
5 each	Portable blackboards
4 each	16mm sound movie projectors
5 each	Student study carrels with 35mm slide projector, cassette tape recorder, video playback cassette decks, and color video monitors
5 each	Video tape recorder playback unit or K-28 Gun camera film projector

7. F-16A/B WEAPON SYSTEM DRAWING SET PLUS UPDATE SERVICES, CASE IR-D-STH.

This case provides for one complete set of the F-16A/B weapon system drawings in aperture card format (excluding proprietary data) plus one year of update services. Drawings will provide sufficient detail for local manufacture of assembly when so coded at source.

8. TECHNICAL PUBLICATION/DATA, CASE IR-D-STJ

a. Initial lay-in of approved technical orders for the IIAF F-16 aircraft, including interim TCTOs and aircrew training publications and software, will be provided and updated through six months after production line delivery of the last aircraft. Prorated, nonrecurring costs for technical orders are included. Technical publications delivered under this case are anticipated to include the following:

1F-16A-1	Flight Manual Aerial Refueling Checklist	250 copies
1F-16A-1CL-1	Flight Crew Checklist	250 copies
1F-1aA-5	Basic Weight Checklist and Loading Data	50 copies
1F-16A-6CF-1	Acceptance and Functional Check Flight Manual	50 copies
1F-16A-6CL-1	Acceptance and Functional Flight Checklist	50 copies
1F-16A-2	Organizational Maintenance Manuals	50 copies
1F-16A-2CL-X	Organizational Maintenance Checklists	400 copies
1F-16A-4	Illustrated Parts Breakdown	50 copies
1F-16A-06	Work Unit Code	250 copies
1F-16A-3	Structural Repair	25 copies
1F-16A-6	Inspection Manual	25 copies
1F-16A-6WC-X	Inspection Work Cards	25 copies
1F-16A-6-X	Inspection Requirements Sequence Charts	25 copies
1F-16A-36	Non-destructive Inspection Manual	25 copies
1F-16A-X	Tape Manual	25 copies
1F-16A-01	List of Applicable Publications (LOAP)	25 copies
1F-16A-23	Corrosion Control Manual	25 copies

1F-16A-21	Aircraft Master Inventory Guide	25 copies
F-16-34	Aircrew Weapons Delivery Manual	25 copies

In addition, aircrew training publications and software are provided in the following quantities:

Flying Training Syllabus	50 copies
Student Study Guides	250 copies
Academic Instructor Guides	20 copies
Student Study Carrell Programs	3 copies
15mm Academic Slide Programs	2 copies

These listings may be revised as necessary as the program is more clearly definitized. The listings will also be separated into common and peculiar publications and assigned to AFALD and AFSC respectively for management. Follow-on management of peculiar pubs will be accomplished under IIAF nonstandard support cases.

b. Contractor Prepared Data: Management, engineering, and logistics data required for PEACE ZEBRA is funded using this case. Data requirements for the aircraft, engine, simulator, and GPAE for use by the IIAF and USAF will be furnished by the contractors. A PEACE ZEBRA Data Management Plan will be submitted for IIAF approval after implementation of the LOAs.

9. AFLC MANAGEMENT/TRAVEL, CASE IR-D-STK0.

This case provides for travel expenditures and dedicated management by all DOD agencies in the support of those portions of the Iranian F-16 program under cognizance of AFLC. Duration of this case is for a three year period (1 May 1977 through 30 April 1980). An amendment to the case will be appropriately submitted for the remainder of the PEACE ZEBRA Program during early 1980. Examples of services to be provided are: (1) planning, coordinating and implementing actions required to integrate PEACE ZEBRA requirements into the total F-16 program, (2) monitoring case status and insuring any problems are identified in a timely manner and resolved, (3) providing status of program and problem areas to appropriate agencies for information and necessary action, (4) preparing and implementing unique procedures required to prosecute the PEACE ZEBRA Program in areas such as coordinated inspection of aggregated lots of spares and support equipment, airlift of spares and support equipment, assist in conducting and determining frequency of program reviews, integration of PEACE ZEBRA support with the IIAF logistics system, phase in/phase out of contractor support efforts in Iran, and integrate the engine management data collection system into IIAF logistics system. The numbers of dedicated personnel are estimates and subject to modification. The services identified are not all inclusive and may be expanded or reduced depending on program developments. Numbers of personnel, by location, and services are estimated as follows:

<u>Location</u>	<u>Title</u>	<u>Quantity</u>
AFALD/MI	Logistics/Supply Manager	2
AFALD F-16 Deputy Program Manager for Logistics (DPML)	Program Manager	1

Ogden ALC	System Logistics Specialist	2
Ogden ALC	Item Manager/Supply Specialist	1
Ogden ALC	Transportation/Logistics Specialist	2
Other ALCs	Logistics Specialist	2

NOTE: The IIAF will be charged only for actual services rendered.

10. AFSC MANAGEMENT/TRAVEL, CASE IR-D-STL

This case provides for travel expenditures and dedicated management by all DOD agencies in the support of those portions of the Iranian F-16 program under cognizance of AFSC. Duration of this case is for a three year period (1 May 1977 through 30 April 1980). An amendment to the case will be appropriately submitted for the remainder of the PEACE ZEBRA Program during early 1980. The AFSC System Program Office (SPO) will manage the overall system acquisition by insuring adequate communications and coordination among all responsible agencies and organizations. The primary objective of the Program Office in support of PEACE ZEBRA is the management of resources to insure specified performance characteristics and scheduled availability at optimum purchase price of the following items:

- a. Aircraft
- b. Developmental support equipment
- c. AFSC associated technical data and publications

Funding will cover the following positions and accompanying descriptions:

<u>Quantity</u>	<u>Title</u>	<u>Description</u>
2	Program Manager	Coordinates overall PEACE ZEBRA activities within the AFSC/SPO areas of responsibility.
1	Logistics Manager	Manages logistics related aspects of PEACE ZEBRA within the SPO and interfaces with AFLC.
2	Logistics Technicians	Responsible for PEACE ZEBRA peculiar support requirements.
1	Contracting Officer	Responsible for contracting for aircraft and contractor furnished equipment.
1	Buyer	Responsible for implementing contracting actions directed by the contracting officer.
2	Financial Manager	Responsible for case status accounting of AFSC assigned cases.
1	Cost Analyst	Responsible for cost estimating AFSC/PEACE ZEBRA program requirements.
1	Program Analyst	Responsible for cost schedule contract system criteria (CSCSC) tracking for PEACE ZEBRA.

1	Plans and Documentation Manager	Responsible for maintaining PEACE ZEBRA requirements within F-16 planning documents.
1	Chief Engineer	Responsible for overall engineering efforts associated with PEACE ZEBRA.
1	Configuration Manager	Tracks and controls PEACE ZEBRA configurations through the Engineering Change Proposal (ECP) process.
1	Data Manager	Defines and updates PEACE ZEBRA data and publications requirements.
1	Test Manager	Plans specific PEACE ZEBRA test requirements and integrates these with total F-16 requirements.
1	Engine Manager	Responsible for overall F-100 engine integration effort in the PEACE ZEBRA Program.

NOTE: The IIAF will be charged only for actual services rendered.

11. WEAPON SYSTEM LOGISTICS ADVISOR (WSLA), CASE IR-D-STM

a. This case provides for WSLAs (two), who are direct representatives of the Air Force Logistics Command (AFLC) located at the IIAF Headquarters, and who will serve as a direct link with AFLC agencies in the resolution of logistical support integration problems within the IIAF. The WSLAs are the point of contact for AFLC assigned responsibilities relating to weapon and support systems. It is the responsibility of each WSLA to assist in accomplishing functions which include but are not limited to:

(1) Responses to all F-16 logistics problems encountered by the country.

(2) Recommend problem solutions that are within the parameters of USAF regulations and AFLC procedures.

(3) Assist in review of Stock levels to assure that sufficient stock is available to support the assigned weapon and support systems to the degree required.

(4) Assist the organization to which assigned in the correct interpretation of the weapon system concept and operating procedures.

(5) Accomplish follow-up action to resolve any pending or existing problems which involve logistics support of the assigned weapon system.

(6) Provide logistics support assessment reports to the host organization to which assigned.

(7) Provide logistics support analysis of the host organization to which assigned based on monthly reports from in-country CETS personnel.

(8) Assist in the definition of proposed ECPs and certification of kit receipt and verification of contents.

(9) Coordinate with the host country and assist and/or direct, as appropriate, all ALC logistics assistance teams as required.

(10) Review and/or assist in preparation of crash damaged condition reports as required by in-country personnel.

(11) Periodically review NORS procedures with in-country (base) personnel to assure the timely submission of priority requisitions and to expedite processing, receipt, and handling of priority materiel.

12. RESIDENT INTEGRATED LOGISTICS SUPPORT ACTIVITY (RILSA),
CASE IR-D-STN2

a. This case provides for the full time assignment of two AFLC logisticians (1-1630-GS-11, 1-2010-GS-11) and two AFLC clerks (301-GS-4, local hire) at General Dynamics/Fort Worth, Texas for a period of 24 months beginning approximately the fourth quarter of Fiscal Year 1977. The basic function of the RILSA are separated into two primary operations of RPT and MIT (Resident Provisioning Team and Maintenance Improvement Team). The basic operations of these two functions are iterated below:

(1) The RPT will:

(a) Participate with the contractor in development of Optimum Repair Level Analysis (ORLA) to insure adequacy and validity.

(b) Review Supplementary Provisioning Technical Data DI-V-700 submitted by the contractor for accuracy and validity. Insure that technical data are adequate for initial logistics support to satisfy the requirements for cataloging/standardization, and interchangeability functions. Insure technical data are adequate to develop full descriptive item identifications, including the item(s) physical, electrical, mechanical, and dimensional characteristics.

(c) Approve/assign Source, Maintenance Recoverability Codes, and quantities on all items with the assistance of the Recoverable Item Inventory Manager (RIIM) ALC when applicable.

(d) Accomplish required cataloging tasks. Review the quantity of spare/repair parts required in accordance with AFLCR 57-72, Determination of Requirements and AFLCP 57-13 Mod-Metric. Approve and/or adjust contractor computed quantities on items coded "P" when AFLCR 57-27 and/or AFLCP 57-13 do not establish a computed quantity.

(e) Compute the quantity for all spare/repair parts required for support of the F-16 aircraft excluding government furnished repair parts.

(f) Assist the AFPRO to negotiate delivery schedules on items for which the tentative delivery schedule has been changed.

(g) Schedule provisioning meetings with RIIM ALC as required.

(2) The MIT has responsibility similar to that of a Technical Services Branch in a System Manager environment. The maintenance technician's responsibilities include the following:

(a) Maintain awareness of all warranty actions pertaining to RIW/RIW MTBF First Line Units (FLUs) at contractor or vendor facilities in the event RIW is offered and accepted after being made available for FMS.

(b) Participate with the Corrosion Prevention Advisory Board on-site review of system production corrosion control practices. The RILSA will also review Engineering Change Proposals (ECPs) for impact on Integrated Logistics Support (ILS) tasks and insure that the contractor has considered all areas. This team will accomplish all aspects of spares provisioning as well as place orders with the contractor and input requirements to DOD agencies for supply action.

13. CONTRACTOR INTEGRATION SERVICE, CASE IR-D-STP0

a. The objectives of the Contractor Integration Services (CIS) activity is to provide the following types of support for the PEACE ZEBRA Program:

- (1) Facilities Requirements Definition and Coordination.
- (2) Manpower Requirements Development.
- (3) Support Equipment Documentation and Analysis.
- (4) In-country Liaison for the PEACE ZEBRA Program in general and the above tasks in particular.

The CIS case is priced to include activities from 1 July 1977 through 31 December 1979. The facilities and in-country liaison activities will continue beyond that, but are assumed to be picked up in the Contractor Maintenance and Supply Services LOA. The manpower and support equipment activities end in late 1978.

CIS results in an early manning by General Dynamics during the program planning and initiation phase so that surprises and unknowns are minimized during introduction of the F-16 in-country. The estimated 32 man-years of U.S. based activity is justified on the basis of savings during the initial operation of the F-16, as well as the increased level of supportability of the aircraft due to the early CIS involvement. The cost of this case includes establishing and maintaining offices in-country and administrative support in the U.S. in addition to the manning costs.

b. Facilities. A major problem of previous weapon system introductions in-country has been the timely availability of adequate base facilities. Serious deficiencies related to facilities, power, air conditioning, heating, plumbing, etc., have been noted. It is clear that all parties -- the IIAF, USAF, and General Dynamics -- must approach this problem early and with adequate effort.

The realization of adequate base facilities is the product of planning, design, and implementation. General Dynamics plans a cadre of engineers who are active participants in all three phases. The cadre will consist of six people expert in different technical areas related to facilities. Five of these will form a permanent cadre in-country and one engineer will be located in the U.S. for coordination purposes.

c. Manpower. A critical issue in the PEACE ZEBRA F-16 Program is the availability of manpower to staff the in-country operations. There are two types of trained manpower required, PEACE ZEBRA personnel and contractor personnel. A detailed plan is necessary to:

- (1) Identify PEACE ZEBRA manpower requirements.
- (2) Identify contractor manpower requirements (in-country).

(3) Detail PEACE ZEBRA training pipeline, courses, and schedules.

(4) Detail contractor personnel acquisition, courses, and schedules.

(5) Phase contractor and PEACE ZEBRA training programs to accommodate in-country aircraft delivery and base activations.

A task team of three persons will be assigned to develop manpower requirements. This team will be active up until the time of initiation of the actual contractor and PEACE ZEBRA training programs in late 1978. They will be based in the U.S. with extensive temporary duty in-country.

d. In-country Liaison. A cadre of General Dynamics personnel will be established in-country beginning in June 1977. The CIS will establish two offices, one in the city of the IIAF Headquarters in June 1977, and the other in the city located near the first operating base in early 1978. During the CIS time period, most General Dynamics personnel will be permanently located in the city of the IIAF Headquarters, and the office at the first operating base will be used primarily as a base of operations during temporary duty.

The in-country liaison office will consist of five relocated General Dynamics employees. Local hires will be provided in a supporting role as required. The relocated people will be concerned with general program activities, base activation, logistics support, and the advance planning for introduction of General Dynamics maintenance and supply technicians into the country for support of the aircraft.

14. CONTRACTOR ENGINEERING TECHNICAL SERVICES (CETS), CASE IR-D-STR0

a. This case provides for contractor technical assistance requirement as defined in accordance with AFM 400-3.

b. CETS can be provided for any system/subsystem relative to the F-16 weapon system. Recommended CETS for each of the three operational locations are listed by general category and quantity. Price includes manning for all three locations.

Engine	2 each
Engine Accessories	1 each
Avionics/Fire Control	2 each
Comm/Navigation	2 each
Airframe General	1 each
Penetration Aids	1 each
Armament	1 each
Automatic Pilot	1 each
Inertial Navigation	1 each
Electronic Support Equip	1 each

CETS personnel should arrive three months prior to activation of each location. Period of coverage will be two years from time of arrival. Follow-on coverage will be through the open-end CETS case.

15. QUALITY ASSURANCE, CASE IR-D-STS0

This case provides funding for the PEACE ZEBRA pro rata share of the total F-16 quality assurance costs. Approximately 500,000 man hours are estimated to be required for the quality assurance of 150 aircraft plus related contractor and government furnished equipment (CFE, GFE).

16. COMPONENT IMPROVEMENT PROGRAM (CIP), CASE IR-D-STT0

a. This case provides for the GOI pro rata share participation in the F100 engine CIP.

b. The CIP is a USAF managed continuing engineering program funded as part of the F-100 engineering effort. This program provides for the improvement in design of any component of the engine to correct flight safety items, reduce cost, increase reliability, durability, and maintainability of the engine, correction of service reported problems, extension of engine maturity, and improvement of repair and overhaul procedures. The CIP does not provide for increased performance (e.g., increased thrust, reduced specific fuel consumption), or for the development of growth models of the engine, or for hardware associated with correction of deficiencies. The effectiveness of the CIP is dependent upon active country participation to include identification and reporting of in-service problems, acceptance and implementation of resulting improvements, and attendance at periodic reviews both in-country and in the CONUS.

c. The cost of the F-100 CIP is borne by users of the F-100 engine. Individual user cost is based on a ratio of the user's engine inventory (installed and spares) to the total F-100 engines produced. The country engine inventory is defined as those engines which have been accepted from the manufacturer by the U.S. Government on behalf of that country as of the beginning of the U.S. fiscal year being funded. In-country delivery is not a criteria for determining engine inventory. The annual program dollar requirements will be established by the U.S. Government after review of service reported problems and progress made towards achieving engine maturity goals. Financial and technical participation by the GOI will begin in the U.S. fiscal year in which the first F-100 engine for Iranian aircraft is accepted at the engine contractor's plant. The country will be billed on a quarterly basis in advance of its share of the CIP.

17. AIRCRAFT STRUCTURAL INTEGRITY PROGRAM (ASIP), CASE IR-D-STU0

The USAF is developing an ASIP for the F-16, the scope of which is not fully defined. This case will fund the initial inclusion of Iranian F-16s in the overall F-16 ASIP. When F-16 ASIP is defined and the total funding requirements for Iran are known, this case will be amended to provide ASIP for PEACE ZEBRA through the acquisition phase.

18. MAINTENANCE DATA COLLECTION SYSTEM, CASE IR-D-STV0

This case is to provide for the initial exploration of alternatives and information gathering necessary to prepare an optimum system description, including its interfaces with the standard USAF base/depot level systems. Of paramount consideration in this evaluation will be the recognition of the IIAF's present investment in computer hardware. The conclusion of this effort will be a definitized case to accomplish the overall objective of a MDCS compatible with the USAF's system. This effort will include:

a. Evaluation of the two most obvious alternatives:

(1) Conversion of the standard USAF base level automated systems, the Maintenance Data Collection System and the Maintenance Management Information and Control System (which are presently mechanized on Burroughs 33500 computers) to the Honeywell 6000 series computer presently used by the IIAF.

ADDITIONAL TERMS AND CONDITIONS
(GENERAL)

1. To meet the Required Availability Date (RAD) (RAD is six months prior to first aircraft delivery to each squadron), the Government of Iran (GOI) authorizes the USAF to enter into sole source procurement contracts when it is determined necessary.
2. The GOI recognizes that, due to early procurement commitments to aircraft spares, some obsolescence may occur for those spares ordered as a result of aircraft changes made during the latter stages of aircraft Full Scale Development (FSD).
3. Any USG/USAF support and/or commitments to this program will be provided on a noninterference basis with on-going USAF F-16 programs.
4. Overseas transportation for aggregated aircraft spares and support equipment is not priced in this program. Arrangements are the responsibility of the purchaser.
5. Facilities construction (including associated architectural and engineering services) will be the responsibility of the GOI. Facilities must be constructed according to IIAF approved contractor specifications and be completed in time to accommodate aircraft and associated equipment deliveries.
6. The following items have not been included in this LOA and if required will be addressed in follow-on LOAs or appropriate amendments.
 - a. Software Maintenance Management and Modifications: Costs of modifying or updating avionics and associated Avionics Intermediate Shop software.
 - b. ASIP and MDCS: Cases IR-D-STU and IR-D-STV include initial program costs only and may require amending or follow-on LOAs for complete program funding.
 - c. Reliability Improvement Warranty (RIW): RIW will provide incentives to the contractor to design production installed items to preclude high failure rates and insure the customer against high failure repair costs. As the program requires further definitization it can not be offered at this time.
 - d. Trainer Flight Simulator (TFS): Definitization of the TFS has not been completed by the USAF. GOI may review their requirements after definitization and if desired, forward a request for the TFS to be processed under a separate LOA.
 - e. Aircraft Delivery: Transportation of aircraft to Iran is not covered in this LOA and must be arranged separately through FMS, commercial, or organic means after the purchaser selects the desired method of delivery.
7. Transfer of funds between PEACE ZEBRA cases is authorized to preclude unnecessary administration and/or transfer of funds between USG/GOI.
8. Provisions for GFE/CFE, SSE, and initial spares are priced and will be provided on the basis of using available serviceable assets (new or used). Both the USAF and the IIAF will share proportionately in these assets (the IIAF may inspect these assets at the point of aggregation prior

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to shipment to Iran). Provisioning solely on the basis of new and unused equipment could result in significant price increases and probable production delays. Therefore, the new and unused requirement does not apply to this LOA, however, new and unused assets will be provided where available and practical.

9. A two percent administrative charge has been added to the estimate to cover an appropriate portion of USG costs of managing and administering the program. This includes costs for other than direct support civilian and military personnel, data processing, printing of FMS reports, audits, financial management, administration of logistics and training support, communications, utilities, office space and office supplies, CONUS contract administration, and other administrative efforts. Excluded are salaries and travel expenses charged directly to FMS cases such as PEACE ZEBRA dedicated AFSC/AFLC System Acquisition Management, Contractor Engineering Technical Services, Weapon System Logistics Advisor, Engineering and Provisioning Services, RILSA, Quality Assurance, CIP, ASIP, MDCS, Travel Outside the CONUS, contract administration in Iran, and training.

10. Successful program management will also depend on the timely establishment of the Program Management Office in Iran as outlined in Annex D of the Weapon System Planning Team Visit Report.

11. Cases IR-D-STC, STD, STE, and STF have been structured according to planning factors approximating those for the USAF F-16 program. Support has been considered for a period of one year at the initial PEACE ZEBRA base activation site. Total initial program support will be contingent upon the GOI's acceptance of a subsequent LOA by 1 September 1977 which will identify total initial PEACE ZEBRA Program requirements.

ADDITIONAL TERMS AND CONDITIONS
TRANSPORTATION SERVICES

1. USG agrees to provide transportation services for the items identified on the face of this Letter of Offer to the Point of Delivery. Purchaser property will be transported at Purchaser's risk.
2. Purchaser will accept USAF delivery listings as the basis for billing and proof of shipment.
3. Purchaser will accept responsibility for clearance of material through its customs at the point of debarkation, and for movement of the material from its port of debarkation to the ultimate in-country destination.
4. Purchaser will appoint a duly authorized official to accept and sign for material at the port of debarkation, and submit outrun message and report.
5. Purchaser will absorb losses of material the USAF does not in fact recover from an independent carrier or handler, including where the USAF is self-insured.
6. Purchaser will self-insure such shipments, or obtain commercial insurance without any right of subrogation of any claim against the United States.
7. The USG will assist the purchaser in processing any claims that may arise for lost or damaged shipments, in the same manner it processes claims for U.S. Government-owned material. Collection of revenue, if any, resulting from approved claims will be credited to the purchaser's account.

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ADDITIONAL CONDITIONS FOR MATERIEL

1. Packing, Handling, and Crating (PH&C) will be charged only for those items shipped from Department of Defense facilities. For items having a unit cost of \$10,000 or over, only the actual cost of PH&C will be charged. In no event will PH&C be charged on items shipped from contractor's facilities. When the source of supply changes, the purchaser agrees to an automatic adjustment of accessorial charges.
2. When parcel post shipments are made, the purchaser agrees that the charge, specified in the latest Department of Defense directive, will be additive.
3. When the point of delivery changes and/or the transportation responsibility changes, the purchaser agrees to an automatic adjustment of charges and a change of place to title passage, if appropriate.
4. When staging is established for the benefit of the purchaser (not already included in the offer), the purchaser agrees to automatic application of a staging charge, specified in the latest Department of Defense directive.

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ADDITIONAL TERMS AND CONDITIONS
(FINANCIAL)

1. At the request of the Iranian Government the estimated dollar amounts on this Letter of Offer and Acceptance (LOA) are in FY 75 constant dollars. The estimated total program cost as shown on line 15 of the LOA does not account for any program cost growth due to inflation in the U.S. and Europe. These FY 75 dollars will be converted to then year dollar forecasts for purposes of USG obligation/contractual authority. Payments required will be based on actual USAF costs incurred on behalf of the Iranian Government.

2. At the request of the Iranian Government, the indices provided are the USAF F-16 program indices which incorporate the Office of the Secretary of Defense (OSD) published indices for FY 81 and beyond. The OSD indices reflect an approximate escalation rate of four percent per year and may understate the escalation rate for this program. The USAF F-16 program indices do not incorporate escalation for the 15% of the program coproduction by the European Participating Governments (EPG).

USAF Program Indices

FY	77	1.190
	78	1.288
	79	1.403
	80	1.514
	81	1.582
	82	1.645
	83	1.711

3. The case values below are then year values based on USAF program indices listed in paragraph 2 above. Asterisk cases are in target prices, all others are best estimates. Obligation/contractual authority will be based on those values:

<u>Case Designator</u>	<u>Then Year (\$ millions)</u>
IR-D-STB0 *	\$111.4
IR-D-STC0 *	29.4
IR-D-STD0	8.8
IR-D-STE0 *	50.2
IR-D-STF0 *	38.9
IR-D-STG0 *	17.5
IR-D-STH0	.060
IR-D-STJ0 *	36.7
IR-D-STK0	1.3
IR-D-STL0	1.6
IR-D-STM0	.5
IR-D-STN0	.2
IR-D-STP0 *	7.1
IR-D-STR0	6.8
IR-D-STS0	10.9
IR-D-STT0	5.3
IR-D-STU0	2.0
IR-D-STV0	.023
IR-D-STW0	.050
IR-D-STX0	.030
IR-D-STY0	44.1
TOTAL	\$372.063

4. The payment schedule in attachment 6 reflects a cumulative then year LOA value based on the USAF F-16 program escalation. Any increased case values due to escalation beyond that depicted by the program rate escalation or increases for EPG coproduction will result in revision of the payment schedule. In addition, the payment schedule will be reviewed annually and revised as necessary to reflect any changes in forecasted payment requirements.

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PAYMENT SCHEDULE
F-16 SUPPORT CASES
PEACE JEBPA

(DOLLARS IN MILLIONS)

<u>PAYMENT DUE</u>	<u>QUARTERLY PAYMENT</u>	<u>CUMULATIVE</u>
With Acceptance	2.3	2.3
Jul 77	3.4	10.7
Oct 77	21.6	32.3
Jan 78	15.0	47.3
Apr 78	31.0	78.3
Jul 78	33.6	116.9
Oct 78	31.2	148.1
Jan 79	26.5	174.6
Apr 79	27.7	202.3
Jul 79	26.7	229.0
Oct 79	26.0	255.0
Jan 80	24.0	279.0
Apr 80	21.0	300.0
Jul 80	13.5	313.5
Oct 80	16.0	334.5
Jan 81	14.0	348.5
Apr 81	11.7	360.2
Jul 81	9.8	370.0
Oct 81	7.0	377.0
Jan 82	5.5	382.5
Ap 82	3.5	386.0

Atch 6

<u>PAYMENT DUE</u>	<u>QUARTERLY PAYMENT</u>	<u>CUMULATIVE</u>
Jul 82	2.9	388.9
oct 82	1.5	390.4
Jan 83	1.2	391.6
Apr 83	.6	392.2

NOTE: This payment schedule reflects estimated cash required in the PEACE ZEBRA F-16 support cases aircraft Letter of Offer and Acceptance (LOA). Any payments made to the Air Force Accounting and Finance Center/Security Assistance Accounting Center (AFAFC/SAAC) based on the PEACE ZEBRA Letter of Intent will be applied as credits to subsequent billings. This schedule will be reviewed annually during the life of this LOA. Requests for payment (DD Form 645) will be based on actual USAF costs and contractor requests for progress payments.

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